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FROM THIMBLE TO GOWN

Science TT

A MANUAL OF SEWING

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BY

ETHEL VAN GILDER

HIGH SCHOOL, SPRINGFIELD, ILLINOIS



1944

ALLYN AND BACON

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FOREWORD

FROM THIMBLE TO GOWN, with its copious illustrations and practical suggestions, is intended to instruct the pupil in simple, accurate methods of sewing. Its purpose is to explain in plain words the best ways to do the sewing that falls to the lot of the average girl, wife, or mother. The lessons which it offers provide a foundation of professional needlecraft for the few who choose that calling; and for the many who will do all or part of their home needlework, it gives directions and suggestions of inestimable value.

It is based on the author's training in this country's most advanced schools of Home Economics, and on experience gained by teaching. The author attributes in no small degree the constructive value of this book to the students who have exchanged experiences with her in High School and College Home Economics courses. Their problems have been her problems, and, having shared in their solution, she desires to share with others the information thus acquired.

The first unit of the book includes a full and explicit description of the basic stitches used in sewing, both plain and decorative; how to use the sewing machine; and certain general construction problems, such as bindings, facings, pockets, plackets, sleeves, collars, cuffs, and the like.

Following this very definite descriptive material is a unit which discusses color and design in relation to their proper use in garments for people of various types. This unit includes, also, a study of fabrics, particularly cotton, linen, rayon, silk, and wool.

Then come a few chapters of information on taking measurements, cutting garments, making adjustments in patterns for various figures, and drafting patterns.

The third unit concerns itself with the finished garment and how to care for it — cleaning, pressing, shrinking, removing stains, and so on. The chapter on “Origins” gives the pupil a general idea of the historical significance of many of our dress accessories of today.

The projects in the appendix have been prepared as activities for applying the subject matter of the book. Besides proving of value to the teacher who has no special course of study of her own, they may present new and additional ideas to those teachers who already have a course of study.

The book has about three hundred diagrams, clearly and accurately drawn to illustrate each process and to help make it intelligible to the pupil. The text and diagrams are so correlated as to make the actual working out of the processes clear and simple. In addition to the purely diagrammatic illustrations, there are full-page illustrations introducing the units and, at the beginnings of the chapters, smaller cuts which lend an imaginative touch to so technical a manual. The frontispiece is a color chart, with an explanation of the relation of the colors in the wheel.

A complete and practical guide cannot but make proficiency in sewing an interesting and pleasurable goal.

E. V. G.

TABLE OF CONTENTS

UNIT I. THE STITCH

CHAPTER	PAGES
I CONSTRUCTION STITCHES	1-38
THIMBLE, NEEDLE, AND THREAD	1, 2
BASIC STITCHES	3-9
DECORATIVE STITCHES	9-35
USE OF THE SEWING MACHINE	35-38
II CONSTRUCTION PROCESSES	39-70
SEAMS	39-45
TAILOR'S TACKS	45, 46
DARTS	46, 47
GATHERING; SHIRRING	47-50
TUCKS	50, 51
PLAITS; GODETS	51, 56
BIAS	56
BINDINGS; PIPINGS	56-59
FACINGS	59, 60
CORDINGS	60
MITERING	61-63
HEMS	63-70
III CONSTRUCTION PROBLEMS	71-144
YOKES	71-73
PLACKETS	73-81
NECKLINE FINISHES, COLLARS	81-89
SLEEVES	89-104
POCKETS	104-114
BELTS, GIRDLES, SASHES, TIES	114-116

CHAPTER	PAGES
LININGS	116-123
LACES	123-128
FASTENERS: BUTTONS, BUTTONHOLES, HOOKS AND EYES, SNAPS, LOOPS	128-141
MENDING: PATCHES, DARNS	141-144

UNIT II. THE PATTERN

IV COLOR	147-156
THE INTERPRETATION OF COLOR	148-152
THE LAW OF THE DRESSING SCHEME	152, 153
CHOOSING THE COLOR SCHEME	153-156
V DESIGN	157-194
ELEMENTS OF DESIGN	158-160
FIGURE AND POSTURE	161-163
DRESSING THE INDIVIDUAL TYPES	163-165
FABRICS: COTTON, LINEN, RAYON, SILK, WOOL	165-188
WEAVES AND KNITS	188-194
VI MEASUREMENTS	195-198
VII CUTTING	199-205
KNOWLEDGE REQUIRED IN CUTTING GARMENTS	199-202
ORDER OF CUTTING AND CONSTRUCTING	203-205
VIII THE WHYS OF CLOTHES	206-218
CLOTHES AND CHARACTER	206-209
STYLE	210-213
BEAUTY	213-216
CLOTHING BUDGET	216-218
IX PATTERNS AND ADJUSTMENTS FOR VARIOUS FIGURES	219-254
HOW TO SOLVE YOUR FITTING PROBLEMS	219-225
HOW TO ALTER PATTERNS	225-245
DRAFTING PATTERNS	245-254

TABLE OF CONTENTS

vii

CHAPTER	PAGES
X UNDERGARMENTS	255-261
GENERAL DIRECTIONS	255, 256
NIGHTGOWNS, SLIPS, BLOOMERS, PAJAMAS	256-261
CHILDREN'S CLOTHES	261

UNIT III. THE GARMENT

XI THE FINISHED GARMENT	265-273
HOW TO MAKE A DRESS FOR ANY OCCASION	266-268
HOW TO MAKE A COAT	268-273
XII CLEANING, PRESSING, AND SHRINKING	274-296
THE CLEANING OF GARMENTS	274-281
DIRECTIONS FOR WASHING FABRICS	275-279
BLEACHING AND TINTING	279-281
PRESSING	281-284
SHRINKING	284-286
REMOVAL OF STAINS	286-295
CARE OF CLOTHES CLOSETS	295-296
XIII ORIGINS	297-324
ORIGIN OF TOOLS OF SEWING	297-303
ORIGIN OF ACCESSORIES OF COSTUME	303-324

APPENDIX

PROJECTS AND EXERCISES	327-339
TOPICS FOR CLASS REPORTS, CLASS COMMITTEE ACTIVITIES	340
SCORE CARDS	341-344
INDEX	1

LIST OF FIGURES

FIGURE	PAGE
The Color Cycle	<i>Frontispiece</i>
1. Thimble Position	2
2. Knot Stitch for Beginning Thread	3
3. Plain Knot	3
4. Weaving Stitch	4
5. Square Knot	4
6. Even Basting	4
7. Uneven Basting	5
8. Dressmaker's Basting	5
9. Diagonal Basting	5
10. Guide Basting	5
11. Running Stitch	6
12. Overcast Stitch	6
13. Whipping or Overhand Stitch	6
14. Back Stitch	7
15. Combination Stitch	7
16. Darning Stitch	7
17. Buttonhole Stitch	7
18. Catch Hemming Stitch	8
19. Blind Slip Stitch	8
20. Warp Stitch	9
21. Outline, Crewel, or Kensington Stitch	9
22. Stem Stitch	9
23. Chain Stitch	10
24. Ladder Stitch	10
25. Magic Chain Stitch	10
26. Zigzag Chain Stitch	10
27. Lazy Daisy Stitch	11
28. Long and Short Stitch	11
29. Seed Stitch	11
30. Catch or Herringbone Stitch	11
31. Feather Stitch	12

FIGURE	PAGE
32. Briar Stitch	12
33. Bow or Deerfield Stitch	12
34. Cross Stitch	13
35. French Knots	13
36. Bullion, Wheat, or Rolled Rose Stitch	14
37. Buttonholed Eyelets	14
38. Appenzell Stitch	15
39. Rambler Rose Stitch	15
40. Blanket Stitch	15
41. Satin Stitch	16
42. Embroidery Blanket Stitch	16
43. Diagonal Fagoting	16
44. Straight Fagoting	17
45. Net Fagoting	17
46. Bermuda Fagoting	18
47. Single Hemstitching	19
48. Double Hemstitching	20
49. Diagonal or Rickrack Hemstitching	20
50. Italian Hemstitching	20
51. Couching Stitch	21
52. Cable Stitch	21
53. Arrowhead	22
54. Crowfoot	22
55. Bar Tack	23
56. Smocking	23
57. Punch Work	25
58. Shadow Stitch	25
59. Appliqué	26
60. Needlepoint	26
61. Foundation Stitch for Tatting	27
62. Single Rings	28
63. Double Rings	28
64. Clover Leaf	29
65. Chain Crocheting	30
66. Single Crocheting	30
67. Double Crocheting	30
68. Yarn Flowers	32
69. Knitting	34
70. Plain Knit	35

LIST OF FIGURES

xi

FIGURE	PAGE
71. Purl Knit	35
72. Treadling the Machine	36
73. Threading the Machine	38
74. Winding the Bobbin	38
75. Plain Seam	40
76. French Seam	41
77. Flat Fell Seam	42
78. Standing Fell Seam	42
79. Stitched Edge or Commercial Seam	43
80. Welt Seam	43
81. Flannel Seam	43
82. Picoted Seams	44
83. Corded Seams	44
84. Overcasting Seams	44
85. Pinking	44
86. Binding	45
87. Turned	45
88. Picoting	45
89. Tailor's Tacks	45
90. Darts	46
91. Gathering	47
92. Garment Bands	49
93. Shirring	49
94. Ruffles	50
95. Tucks	51
96. Knife Plaits	52
97. Box Plait	53
98. Inverted Plait	53
99. Kick Plait	54
100. Godets and Flares	55
101. Tailored Godets and Flares	55
102. Inconspicuous Godets and Flares	55
103. Gussets	56
104. True Bias	56
105. Bindings	57
106. Inconspicuous Binding	57
107. Conspicuous Binding	57
108. Piping	58
109. Inconspicuous Piping	58

FIGURE	PAGE
110. Conspicuous Piping	58
111. Straight Facing	59
112. Fitted Facing	59
113. Shaped Facing	59
114. Cord Tuck	60
115. Cord Piping	60
116. Miter for Firm Fabric	61
117. Miter for Bias Tape	61
118. Finished Miter	62
119. Mitring Straight Bands	62
120. Mitring Lace and Embroidery	63
121. Establishing Hemline	65
122. Method of Sewing in a Hem	66
123. Plain Hem	66
124. Bound Hem	67
125. Faced Hem	67
126. Curved Hem	67
127. Scalloped, Pointed, or Squared Hem	68
128. French Hem	70
129. Rolled Hem	70
130. Damask or Napery Hem	70
131. Single Yoke	72
132. Double Yoke	72
133. Continuous Placket	73
134. Cut-Out Continuous Placket	74
135. Two-Piece Placket	75
136. Tucked Placket	75
137. Lap Placket	76
138. Fly Placket	77
139. Tailored Placket	78
140. Neck Binding	80
141. Convertible Collar Facing	81
142. Attaching Convertible Collar	82
143. Straight Band Collar	83
144. Middy Collar	84
145. Tailored Collar	85
146. Attached Collar	86
147. Detached Collar	87
148. Stand-Up Collar	87

LIST OF FIGURES

xiii

FIGURE	PAGE
149. Peter Pan Collar	88
150. Rolled Collar	88
151. Shawl Collar	89
152. Shirt Sleeve	90
153. Set-In Sleeve	91, 93
154. Setting in a Sleeve	95
155. Kimono Sleeve	96
156. Making the Kimono Sleeve	97
157. Making the Raglan Sleeve	97
158. Making the Epaulet Sleeve	98
159. Single Cuffs	100
160. Double Cuffs	100
161. Tailored Cuffs	101
162. Attached Cuffs	102
163. Detached Cuffs	103
164. Patch Pocket	105
165. Set-In Pocket	107
166. Bound Pocket	109
167. Lap Pocket	111
168. Welt Pocket	112
169. Flap Pocket	113
170. Single Belts	115
171. Double Belts	115
172. Ties	116
173. Waist Lining	118
174. Coat Lining	120, 121
175. Joining Lace	124
176. Attaching Lace to Edge	125
177. Lace Fagoted to Fabrics	126
178. Medallions	126
179. Insertion	127
180. Worked Buttonhole	128
181. Bound Buttonhole	131, 132
182. Looped Buttonhole, Worked	133
183. Looped Buttonhole, Fabric	134
184. Elastic and Cord Buttonholes	135
185. Frogs	136
186. Sewing on Buttons	138
187. Sewing on Snaps	139

FIGURE	PAGE
188. Sewing on Hooks and Eyes	140
189. Set-In or Hemmed Patch	141
190. Catch-Stitch Patch	142
191. Darned-In Patch	142
192. Overhand Patch	143
193. Straight Tears	143
194. Diagonal Tears	144
195. Three-Cornered Tears	144
196. Darning Holes	144
197 and 198. Design in Dress	159
199. Table of Textiles	177
200. Plain Weave	190
201. Twill Weave	191
202. Satin Weave	192
203. Figure Weave	193
204. Knitted Fabric	193
205. Method of Taking Measurements	197
206. Periods of Dress: Ancient to 16th Century	208
207. Periods of Dress: 17th Century to 19th Century	209
208. Periods of Dress: 19th and 20th Centuries	211
209. Periods of Dress: 20th Century	215
210. Location of Shoulder Seam	220
211. Establishing Shoulder Seam	220
212. Location of Underarm Seam	221
213. Location of Darts and Lifts	222
214. Location of Neckline	223
215. Location of Bust Line	223
216. Armseye Curve	224
217. Location of Waistline	224
218. Location of Hipline	225
219. Waist That Is Too Wide	225
220. Waist That Is Too Narrow	226
221. Waist That Is Too Long	226
222. Waist That Is Too Short	226
223. Waist Patterns That Wrinkle under the Arm	227
224. Flat-Busted Figure	227
225. Full-Busted Figure	227
226. Wide Shoulders and Flat Bust	228
227. Wide Shoulders and Full Bust	228

LIST OF FIGURES

XV

FIGURE	PAGE
228. Narrow Shoulders	228
229. Round Shoulders	229
230. Square Shoulders	229
231. Sloping Shoulders	230
232. Over-Erect Figure	230
233. Sway-Back Figure	230
234. Flat Back and Large Bust	231
235. Large Abdomen	231
236. Flat Chest	232
237. Large Neck	232
238. Small Neck	232
239. Low Neck	233
240. High Neck	233
241. Neckline That Bulges at Back or Front	233
242. Shoulder Seam That Slides toward Back	233
243. Fleishy Neck and Shoulders	234
244. Slender, Flat Back	234
245. Too-Large Collar	234
246. Too-Small Collar	234
247. Too-Long Collar	235
248. Too-Short Collar	235
249. Too-Wide Collar	235
250. Too-Narrow Collar	235
251. Wrinkles from Top of Sleeve to Elbow	235
252. Wrinkles at Armpit	236
253. Too-Long Sleeve	236
254. Too-Short Sleeve	236
255. Too-Wide Sleeve	237
256. Too-Narrow Sleeve	237
257. Sleeve That Puffs at Top	237
258. Sleeve That Puffs at Front or Back	237
259. Sleeve That Wrinkles from Armpit to Elbow	238
260. Sleeve That Wrinkles around Upper Arm	238
261. Sleeve That Is Too Small around Armseye	238
262. Too-Small Armseye and Top of Sleeve	238
263. Amount Trimmed Off on Armseye Allowed at Top	239
264. Amount Trimmed Off on Armseye Allowed in Front	239
265. Amount Trimmed Off on Armseye Allowed at Back	240
266. Top of Sleeve Enlarged When Shoulder Seam Is Let Out	240

FIGURE	PAGE
267. Top of Sleeve Made Smaller When Shoulder Seam Is Taken Up	240
268. Sleeve That Draws at Top and Twists Around	241
269. Medium Upper Arm	241
270. Large Upper Arm	241
271. Large Arm	242
272. Sleeve That Twists around Arm	242
273. Too-Large Waistline	242
274. Too-Small Waistline	243
275. Too-Large Hip Line	243
276. Too-Small Hip Line	243
277. Too-Short Skirt	244
278. Too-Long Skirt	244
279. To Allow Fullness in Skirt	244
280. Natural Dip at Waistline	245
281. Garment That Cups In at Bottom	245
282. Garment That Cups Out at Bottom	245
283. Draped Patterns	246
284. Drafting a Fitted Waist	247
285. Drafting a Fitted Sleeve	249
286 and 287. Foundation Collars	251
288. Drafting a Two-Piece Fitted Skirt	252
289. Cutting the Slip	257
290. Shaping the Neckline	257
291. Cutting and Finishing the Teddy	258
292. Pajamas	260
293. Assembling the Muslin Coat	270
294. Assembling the Coat	272
295. Bottom of Coat Facing	273

FROM THIMBLE TO GOWN

UNIT I

THE STITCH



“SEWA FINE SEAM”

CHAPTER I

CONSTRUCTION STITCHES

As you sew so shall you rip.



CAN you remember how, on rainy days when you were a small girl, your mother went to her scrapbasket and brought you a bit of silk and lace and ribbon to make a new dress for your doll? In her workbasket you found the scissors, not very large scissors, to cut out the dress; a needle with a big eye, easy to thread; a spool from which to snip a long piece of thread, long enough to use

double so that it wouldn't keep coming out of the needle as you pulled it through. But there was no thimble little enough for your middle finger. Oh, well, it didn't matter; you could sew quite as well without a thimble.

Now that you are older, the first thing you must learn about sewing is how to use the tools properly, especially that thimble which was always too big.

1. THIMBLE, NEEDLE, AND THREAD

1. How to Use the Thimble. — Great emphasis must be placed on the proper use of the thimble. First, it should be worn on the middle finger of the right hand; second, it should be well fitted, thin, and of light weight. It should be large enough to cover the finger nearly to the first joint, but not so large as to have it press against the tip of the finger. This size gives perfect free-

dom to the joint and leaves an air space which serves as a cushion for the end of the finger.

Exercises should be given for practice in using the thimble, employing first the unthreaded needle; next, the threaded needle; and last, the threaded needle with the thread knotted.

Thimble Position (Figure 1). — Place the thimble on the middle finger of the right hand. Hold the needle in the center between

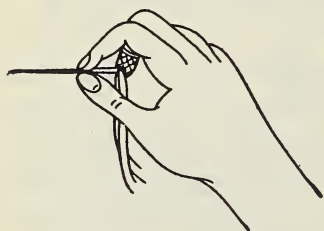


FIGURE 1

the first finger and thumb of the right hand so that the eye points toward the palm and is held firmly against the side of and close to the end of the thimble. Hold the hand at a distance, directly in front of you, with the thimble finger bent at each joint. Practice

pushing the needle forward with the thimble. Push the needle back in position with the first finger and thumb of the left hand. Continue to practice pushing the needle forward until it may be done with ease. Then take the thimble position, and, with a piece of medium-weight material held in the left hand, practice making even stitches through the cloth. Two movements are necessary: one, to push the needle through the cloth with the thimble, and the second, to pull the needle out.

2. Sizes of Needle and Thread. — To work smoothly, the size of the needle and the size of the thread should be proportionate. Thread the needle with the thread as it comes from the spool. Unroll the thread to a medium length and make a knot at the end where it was broken from the spool. (Machine stitching requires a relatively finer thread because it uses two threads instead of one.) The following table will prove of help to you in choosing the correct sizes of the needle and the thread:

NEEDLE	SILK	COTTON	LINEN
1	—	8-10	25
2	—	20	30
3	—	24	40
4	E	36	60
5	D	40-50	80
6	C	60	100
7	B	70	120
8	A	80	150
9	00	90-100	170
10	00	120	180
11	000	150	200
12	—	200	250

2. BASIC STITCHES

3. Stitch Fastenings. *Knot Stitch for Beginning Thread* (Figure 2). — Draw the thread through to the right side of the material; then take several even stitches as you did in your practice work (see page 2). Hold the thread under the left thumb and, with the needle pointed toward



FIGURE 2

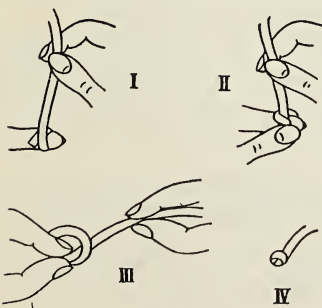


FIGURE 3

you, take a tiny stitch, drawing the needle up through the last hole and through the loop of the thread held down by the thumb, and pull the thread tight. This makes a secure fastening without a big knot.

Plain Knot (Figure 3). — Wrap the thread once around the first finger of the left hand (I). Roll or twist the threads tightly between the thumb and first finger (II). Slip the loop over the end of the finger and make a tiny knot by drawing the thread tightly while holding it between the thumb and first finger (III and IV).

4. Ending Threads in Machine Stitching. *Weaving Stitch* (Figure 4). — Fasten the two threads at the end of the machine stitching separately and by hand. Weave the upper thread in



FIGURE 4

and out along the line of the machine stitching on the wrong side of material. Weave the under thread in and out along the machine stitching in the opposite direction from the weaving of the upper thread.

Square Knot (Figure 5). — Holding the end of the upper thread in one hand and the end of the under thread in the other hand, lap the thread held in the right hand over that which is held in the left hand and draw it around and under the thread in the left hand. Draw the two threads firmly together. Bring the thread in the left hand over that in the right hand and draw it around and under the thread held in the right hand. Draw the threads together firmly as before. This makes a secure knot to use in fastening ends of machine stitching. A *surgeon's knot* is made in the same manner, but has two laps instead of one for the first tie.



FIGURE 5

5. Basting Stitches. — It is essential to use basting when joining two or more thicknesses of material before permanently stitching them. Basting is also used as a guide for stitching or when there is a strain in fitting.

Even Basting (Figure 6). — Insert the needle into the material, taking even stitches about $\frac{3}{8}$ inch long. Make the line of basting straight, about a half inch from the edge of the material, though this width will vary with the kind of material used. A material which frays must be basted deeper.

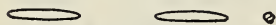


FIGURE 6

Uneven Basting (Figure 7). — This is a running stitch (see Figure 11) that is temporarily used to hold two edges of material

together before being machine stitched. Insert the needle into the material, taking a small stitch about $\frac{1}{8}$ inch long. Skip the distance of about $\frac{1}{2}$ inch and take the next $\frac{1}{8}$ -inch stitch.

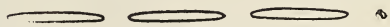


FIGURE 7

Dressmaker's Basting (Figure 8). — Insert the needle into the material, taking two $\frac{1}{8}$ -inch stitches. Skip a $\frac{3}{4}$ -inch space and take the next two $\frac{1}{8}$ -inch stitches.

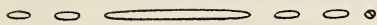


FIGURE 8

Diagonal Basting (Figure 9). — This is a vertical stitch used to hold two surfaces together. Working from right to left, insert the needle in the upper right-hand corner of a space between imaginary parallel lines; draw it out on the lower line directly below where it was inserted. Take a diagonal stitch (A) to the upper parallel line and draw it out directly below where it was inserted, proceeding as before. The thread on the wrong side forms a series of vertical threads while on the right side the threads are diagonal. A stronger basting is made by double diagonal basting (B); that is, by going back and reversing the diagonal basting so that crosses are made on the right side.

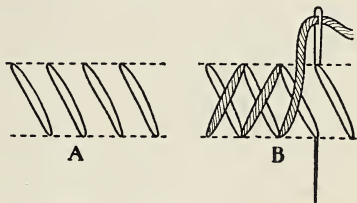


FIGURE 9

where it was inserted, proceeding as before. The thread on the wrong side forms a series of vertical threads while on the right side the threads are diagonal. A stronger basting is made by double diagonal basting (B); that is, by going back and reversing the diagonal basting so that crosses are made on the right side.

Guide Basting (Figure 10). — Insert the needle into the material, making a $\frac{1}{8}$ -inch stitch. Skip the distance of about $1\frac{1}{2}$ inches and make the second $\frac{1}{8}$ -inch stitch, proceeding as before. As you can see, this makes a very loose stitch.

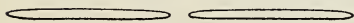


FIGURE 10

6. Plain Stitches. *Running Stitch* (Figure 11). — Hold the material firmly in the left hand, between the thumb and first finger of each hand with the first fingers almost touching. With the needle in the right hand

between thumb and first finger (keeping the point of the needle close to the end of the nails), carefully weave a number of very

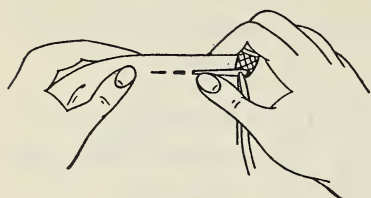


FIGURE 11

small stitches on the needle with a short up-and-down motion of the right wrist and hand. Pull the thread through. Then repeat. These stitches are commonly used for gathering and for joining two or more pieces of material.

Overcast Stitch (Figure 12). — This is a loose diagonal stitch worked on raw edges of material to prevent raveling. Start at the right side of the raw seam with a slant stitch, working toward the left side. Make a stitch deep enough to prevent raveling. This stitch is used most frequently on raw seams. The depth and width of the stitches should vary according to the width of the seam and the weight of the material. The space between the stitches should be about twice the depth of the stitches.

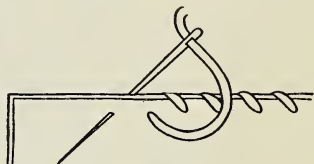


FIGURE 12

Whipping Stitch or Overhand (Figure 13). — This is an over and over close stitch used on selvages (sě'věj — the edge of a woven fabric so formed as to prevent raveling) and folds. It is also used in joining laces and for rolled edges. Hold the material in the left hand and conceal the knot under the hem.

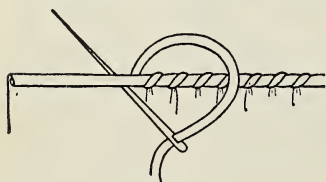


FIGURE 13

Work from right to left. Make the stitches very tiny and very close together.

Back Stitch (Figure 14). — Make one short stitch on the right side of the material with the same length of stitch on the wrong side. Insert the needle in the first hole of the first stitch on the right side

and make a stitch twice the length of the stitch on the wrong side. Then insert needle in the last hole of the stitch on the right side and take up twice the length of the stitch on the wrong side. This makes one of the strongest stitches we have because each time it overlaps the preceding stitch on the under side of the material. It may be used in place of machine stitching.

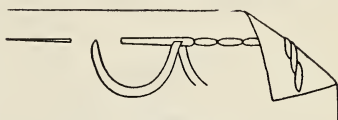


FIGURE 14

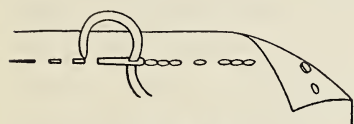


FIGURE 15

stitching. Repeat. These stitches are generally used when making handmade garments.

Darning Stitch (Figure 16). — Fasten the thread with the knot stitch (Figures 2, 3) and make a series of tiny running stitches. Turn the material in the opposite direction and again take the tiny running stitches, alternating them with the row above.



FIGURE 16

Buttonhole Stitch (Figure 17). — Fasten the single thread with the knot stitch (Figure 2) and draw the needle through the material to the right side. Insert the needle the desired width of the stitch and, taking hold of both threads a short distance from the eye of the needle, bring the thread under the point of the needle from right to left. Draw the needle through the material over the thread, and pull the thread up tight to the right. Keep the stitches even both in width and depth. Work from right to left.

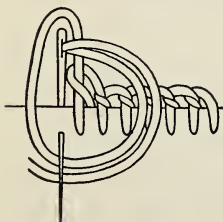


FIGURE 17

Catch Hemming Stitch (Figure 18). — This stitch is ideal for use in sewing bias binding (Page 56, Section 26) in place after it has been stitched to the garment. Fold the raw edge

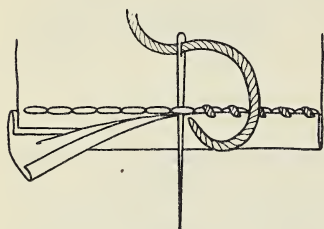


FIGURE 18

under and baste directly through the sewing machine stitch. Fasten the thread with the plain knot. Conceal the knot under the fold and, working from right to left, draw the needle through an upper loop of the machine stitching and through the fold. Insert the needle

in the next loop of the machine stitching and again draw it through the fold. Proceed in this manner until the entire binding is held in place.

Blind Slip Stitch (Figure 19). — This stitch may be used for blind stitching two folded edges together as in belts, ties, pocket flaps, etc. This stitch is very practical because of the continuous thread which is alternated from one folded edge to the other. Working from right to left, insert the needle on the folded edge toward you and then draw the needle through, bringing the knot between the folded edges. Insert the needle in the other folded edge directly opposite the first stitch. Slip the needle between the fold

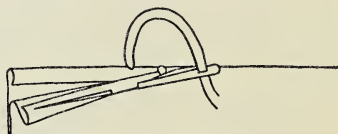


FIGURE 19

and draw it out $\frac{1}{8}$ inch from where it was inserted. Again insert the needle on the folded edge toward you, and bring it out $\frac{1}{8}$ inch from where it was inserted. Continue in this way until the edges are securely fastened. The stitching remains hidden in the folds when the seam is finished. Care should be taken that the stitches do not come through the outer surfaces of the material.

Warp Stitch (Figure 20). — This stitch is the hemming stitch taken parallel with the warp thread. Start by drawing the

needle through the material at the seam, concealing the knot under the hem. Take a small stitch parallel with the warp threads, catching two or three woof threads, and draw out needle a few threads' depth of the turned hem (I). Take a $\frac{1}{4}$ -inch stitch by concealing the needle under the turned edges of the hem (II). Repeat until finished, working from left to right.

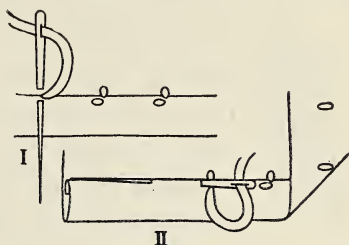


FIGURE 20

3. DECORATIVE STITCHES

7. Embroidery Stitches. *Outline, Crewel, or Kensington Stitch* (Figure 21). — Fasten the thread with the knot stitch (Figures 2, 3) or a few running stitches along the line of design, and with the needle pointed toward you, take stitches of even length and slant them toward the right or left of the line. The first stitch will be the gage for those following. The needle is drawn through the material midway of the preceding stitch, which is the entering point of the first stitch. The stitches can be varied by placing the needle further to the right or left of the line. This stitch is used to outline designs and for padding.



FIGURE 21

Stem Stitch (Figure 22). — Make a series of running stitches along the line of the stem. Work from left to right. Insert the needle, catching a few threads, and work over the running stitch. An attractive design is obtained by keeping the stitches even and close together. This stitch is used also for initials and monograms.



FIGURE 22

Chain Stitch (Figure 23). — The chain stitch is a series of loops that interlock. Fasten the thread with the knot stitch and insert

the needle where the thread was brought out. Take the distance of the stitch desired. Holding the material in the left hand, throw the thread under the needle and hold it down with the left thumb. Pull the needle through and insert it for the next stitch at the point where it comes out. There are many variations of the chain stitch. Two colors of thread may be used.



FIGURE 23

Ladder Stitch (Figure 24). — Make parallel lines of dots about $\frac{1}{4}$ inch apart. Letter the dots on the left-hand line *a-c-e* etc. and those on the right *b-d-f* etc. Bring the needle through the material at dot *a*, hold the thread under the left thumb, insert the needle at dot *b* and bring out at dot *c*, over the thread held down by the thumb. Draw the thread smooth, and holding the thread under the thumb again, take a stitch between *d* and *e*, inserting the needle at *d* over the thread which came out at *b*. Continue.

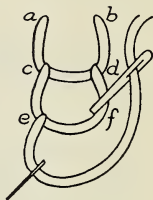


FIGURE 24

Magic Chain Stitch (Figure 25). — Thread the needle with two or more threads of contrasting color, alternating the chain by holding down, with the thumb, one thread at a time. The thread not used in making the loop is carried to the wrong side and does not show when the other thread is drawn up to form the loop. The chain is more attractive when only two colors are used in this manner and a variation of the number of colored loops made.



FIGURE 25

Zigzag Chain Stitch (Figure 26). — Instead of following the straight line, slant the needle alternately to the left and to the right of imaginary parallel lines. Otherwise work like the regular chain stitch.

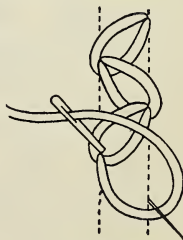


FIGURE 26

Lazy Daisy Stitch (Figure 27). — Bring the thread out on the right side of the material at the inner end of the leaf or petal and insert the needle where the thread was brought out. Take the distance of the loop desired. (Hold the material with the left hand, using the thumb to hold down the thread.) Draw the needle through, making a loop. To hold the loop in place, insert the needle into the material outside of the end of the loop. Draw the needle through to the back of the material and proceed to the next stitch. This is a variation of the chain stitch (Figure 23).



FIGURE 27

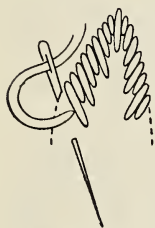


FIGURE 28

Long and Short Stitch (Figure 28). — This stitch is very effective when making flowers and leaves. Fasten the thread with a few running stitches close to the edge of the design nearest you and insert the needle the desired length of the long stitch; then insert the needle the desired length of the short stitch and repeat until the entire design is finished.



FIGURE 29

Seed Stitch (Figure 29). — Fasten the thread with the knot stitch. Make a row



FIGURE 30

of even back stitches the desired length. Make the second row of stitches alternate with the row above. Repeat until the design is finished. If the thread is very fine, two back stitches side by side are necessary to give the desired effect.

Catch or Herringbone Stitch (Figure 30). — Take a small stitch on one imaginary vertical line, then a small stitch on another imaginary line parallel to the first one, at the desired distance from the first stitch. Always work from left to right, and always away from you, with each stitch a little above the preceding one.

Feather Stitch (Figure 31). — Bring the needle through the material at the top. Holding the thread down with the left thumb, take a small slant stitch and pull the needle through. Turn the thread in a loop to the left, hold it down again with the thumb, and take a small slant stitch in the opposite direction to and below the preceding stitch. Continue, making stitches always toward the worker. This is the most com-

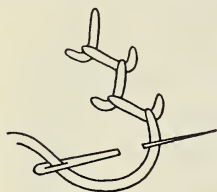


FIGURE 31

mon and effective stitch used in fancy stitching because of its adaptable use for design on garments, but care must be taken in working it for its beauty depends on its evenness.

Briar Stitch (Figure 32). — The briar stitch is a variation of the feather stitch. Care must be taken that the diagonal stitches are kept uniform as to slant and size.



FIGURE 32

Bow Stitch or Deerfield (Figure 33). — Starting at the left of the design with the thread held under the left thumb, insert the needle on the right side of the first stitch and bring it through the cloth halfway back toward the place where the thread came out on the left, and a little below

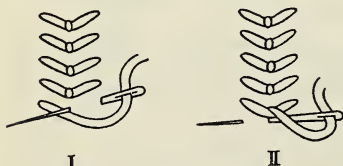


FIGURE 33

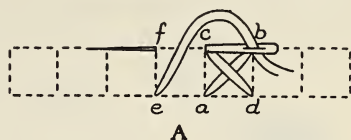
that point (that is, not on a line parallel with it) (I). Pull the needle and thread out over the thread held down by the thumb and insert the needle again directly below this held-down thread (II).

This last little stitch will hold the loop in place. The needle then comes out at a point on the left where the next stitch is to start.

Cross Stitch (Figure 34). — The design is stamped directly on the material or is worked on a coarse-weave canvas where the squares are counted to make the design. (In the latter case, after the design is completed, the threads of the canvas are

carefully removed.) In heavy material the stitches may be made by following the warp and woof threads. The stitch consists of one thread crossed over the other, the two occupying a perfect square, crossing diagonally from corner to corner (A).

To make this stitch, fasten the thread with the knot stitch. Bring the needle up at the lower left-hand corner (a) of the first square and draw it through to the wrong side at the upper right-hand corner (b). Draw the needle to the right side of the material at the upper left-hand corner (c) and insert it at the



lower right-hand corner (d); then draw it to the wrong side and go to the next lower left corner (e) and continue making crosses as before. Another method of making the cross stitch is bringing the needle through the material to the right side and making a series of diagonal stitches from left to right on points along parallel lines (a-b, c-d, e-f in BI). Care must be taken to keep the stitches an even distance apart. After completing the first series of diagonal stitches, work back in the opposite direction, completing the crosses (BII).

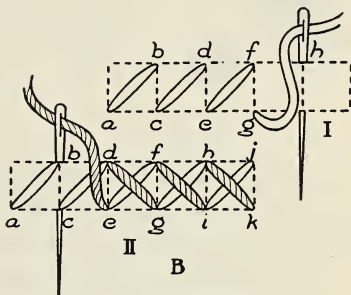


FIGURE 34



FIGURE 35

French Knots (Figure 35).— Fasten the thread with the knot stitch, bringing the needle to the right side of the material. Wrap

the thread around the needle the desired number of times, depending upon the size of the thread, design, and material (I). Insert the needle very near to the place where it was drawn out

before. Draw the coil of threads tightly as close to the material as possible (II). Finish drawing the needle through to the wrong side while holding the coiled threads tightly between the thumb and first finger of the left hand (III). French knots are used



FIGURE 36

to form flowers and their centers, designs, and solid backgrounds.

Bullion, Wheat, or Rolled Rose Stitch (Figure 36). — This stitch forms flowers, petals, and loops on fine lingerie. It is the same as the French knot with the exception

that the thread is wrapped many times around the needle and the needle is then inserted a short distance from where it was drawn out so that the stitch may lie perfectly flat.

Buttonholed Eyelets (Figure 37). — There are two kinds of eyelets, buttonholed and overhanded, and they may be either round or oval in shape.

Make the eyelet hole with a stiletto, using a twisting motion as it is pushed through the material, and sew a tiny circle of running stitches close around the hole (AI). Work the eyelet hole with the buttonhole (BI) or overhand stitch (AI) (see Figure 13), using the circle of running stitches as a gage for the depth of the eyelet stitches. The hole for an oval eyelet is made by cutting a gash the desired length and proceeding as for the round eyelet. Large eyelets are used purely for ornamentation. If they are very large the surplus material in the center is cut out.

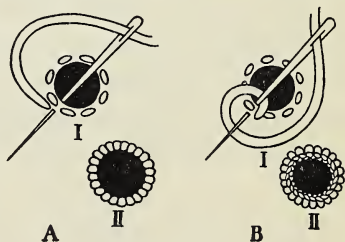


FIGURE 37

Appenzell Stitch (Figure 38). — Thread an embroidery needle with several threads, which may be of varied shades. Knot the

threads and draw the needle through the material at the base of the petal (the point nearest the center of the flower). Insert the needle at the opposite end of the petal and draw it through the material at the base of the next petal and repeat until the flower is finished. Be sure to pull the threads through so that they cover the petal evenly.



FIGURE 38

Rambler Rose Stitch (Figure 39). — Make a large French knot in the center of the rose. With an outline stitch (I), work around the French knot until the rose is the desired size (II). The rose may be made to look more natural if darker shades of threads are used in the center and then shaded to lighter tones at the outside.



FIGURE 39

Blanket Stitch (Figure 40). — This stitch is used to decorate and protect the edges of materials, especially of woollens. After concealing the knot stitch on the wrong side of the material, draw the needle to the edge of the material, holding the thread with the left thumb and the left index finger. Work from left to right. Insert the needle from the edge to the desired length of the stitch. The width may be varied in keeping with the article. Many interesting designs may be worked out by varying the grouping of the length and width of the stitches.

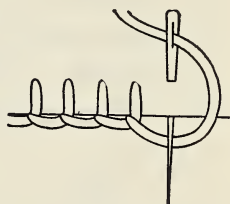


FIGURE 40

Satin Stitch (Figure 41). — Fasten the material in an embroidery hoop¹ and take a few running stitches through the figure of the design. (This is called padding.) Make a series of parallel stitches over them, working from right to left. These should be

¹Embroidery hoops are necessary in doing fine embroidery as they help to keep the material tight and the work smooth.

close enough together to fill up the figure (leaf, petal, or other design) and to give the effect of solid embroidery. Since the stitches are laid exactly parallel and close together, it is sometimes called "laid work."

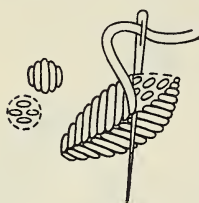


FIGURE 41

Embroidery Blanket Stitch (Figure 42). — This stitch is used as a hem, usually in scallops of varying size. The scallops must be definitely outlined and the material placed in embroidery hoops. The scallops must be evenly padded with long and short or chain stitches.

Then take a few running stitches toward the point of the scallop (to catch the thread), and with the needle pointed toward you, take a stitch over the padded scallop. Hold the thread under the left thumb, drawing the thread as tightly as possible without pulling up the material and destroying the outline. Work from left to right. To obtain a smooth, solid surface, the stitches must be placed as close together as possible. This will give a firm ridge of drawn loops along the edge of the material.



FIGURE 42

8. Fagoting. *Diagonal Fagoting* (Figure 43). — After the raw edges of the material have been finished with a hem, baste the

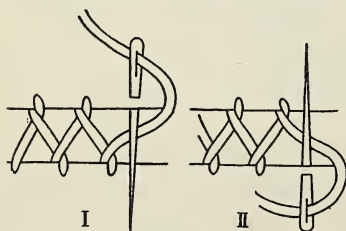


FIGURE 43

material to a piece of stiff paper or cloth, right side on top, leaving the desired width of the fagoting between the two edges. Working from left to right, insert needle and thread through upper surface of material and draw the needle out on the lower edge. Hold the needle vertically and with the thread thrown to the right, draw the needle out over the thread on the upper edge and a little to

the right of the lower stitch (I). Then insert the needle over the thread in the lower edge, keeping the needle vertical and away from the worker (II). Alternate the stitches in the upper and lower edge until the design is finished.

Straight Fagoting (Figure 44). — Finish the edges of the material with a hem and baste the material on stiff paper or cloth as for the diagonal fagoting. Working from right to left,

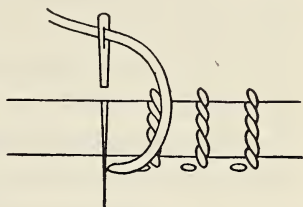


FIGURE 44

draw the needle out at the lower right-hand corner and insert the needle directly above the lower stitch, keeping it vertical. With the thread drawn firmly, hold it with the left thumb and twist the needle around the bar the desired number of times. After drawing the thread to make the twisted bar, take a tiny stitch to hold it securely, then take a stitch to the base of the next bar, and continue in this way until the design is completed.

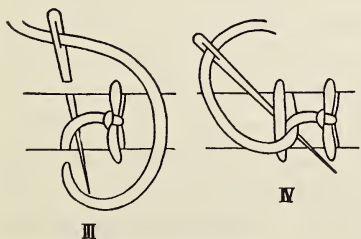
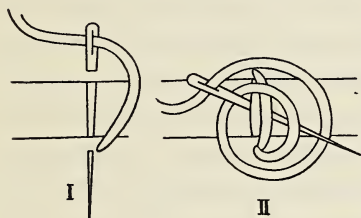


FIGURE 45

Net Fagoting (Figure 45). — Finish the edges with a hem and baste the material on stiff paper or cloth as for diagonal fagoting. Fasten the thread on the lower right-hand corner of the pattern (I). Insert the needle on the opposite edge, directly above the first stitch, keeping the needle vertical, and draw the needle out at the stitch below. With the thread drawn firmly, insert the needle under the bar at the

middle. Wrap the thread once over and around the needle to form the knot (II). Hold the knot firmly between the thumb

and first finger and draw the needle through, taking care to draw the thread securely. The distance between the bars is equal to the distance from the knot to the base of the first bar, which gives a net effect. After the width between the bars has been determined, insert the needle at the base of the second bar, leaving a small loop. Insert the needle directly above the lower stitch, bringing it under the loop (III). Draw the thread firmly, taking care that the loop is in the center of the bar. Insert the needle under the threads, drawing it out at the center of the loop (IV). Wrap the thread over and around the needle once to form the knot. Hold the knot firmly between the thumb and first finger, taking care that the thread is drawn securely. Then take a stitch to the base of the next bar and continue in this way until the design is completed.

Bermuda Fagoting (Figure 46). — Bermuda fagoting may be worked along any designs of stems, as initials, or monograms,

or used in attaching laces. A blunt three-sided needle is used, and fine firmly twisted thread. Tie one end of the thread into the eye of the needle. The fagoting is made by working *toward the worker*. When finished, the stitches form a cross on the back side of the material and a series of squares on the right side of the work. Draw the two stitches tight enough on each side of the square to make holes in the corners.

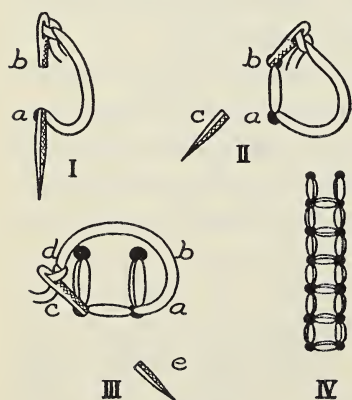
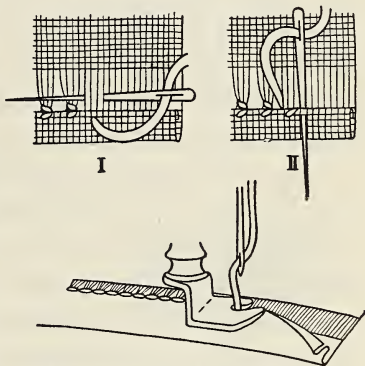


FIGURE 46

Fasten the thread on the wrong side at the beginning of the design. Draw the needle to the right side of the material at *a* and insert the needle in the right side at *b*, an eighth of an inch above where it was drawn out (I). Repeat, making two

stitches (II). Bind *a* and *b* together. Slant the needle to the left at *b*, bringing it out an eighth of an inch to the left of *a* at *c*. Repeat as above. Insert the needle a few threads above at *d*, making the stitch as before, and bring it out at *a*; bind *a* and *c* together. Insert the needle at *c* and bring out at *e*. Bind *a* and *e* together. Continue in this manner until design is completed. When laces are to be attached, baste the lace firmly to the edge of material and make one row of fagoting on the edge of the lace and the other on the material.

9. Hemstitching. *Single Hemstitching* (Figure 47). — Starting at the line where the inner side of the hem is to be, draw from 5 to 7 threads, depending upon the width of the hemstitching and the material used. If a hem is used, baste the hem to the edge of the drawn threads. Fasten the thread with the knot stitch near the edge of the drawn threads and on the wrong side of the material. Proceed to work from left to right. Bring the needle through to the right side and take up the suitable number of threads. The thread is held under the thumb of the left hand; the needle is drawn to the left side of the material, catching the threads in the loop (I). Take a small stitch through the edge of the hem to the right parallel with the drawn threads and as closely as possible to the loop (II). Take up the next group of threads and continue as before. Machine hemstitching is made by turning the fold of the hem to the middle of the drawn threads and stitching on the edge of the fold with a long stitch. Then pull the hem down so that the machine stitching is at the bottom of the drawn threads.



MACHINE HEMSTITCHING

FIGURE 47

Double Hemstitching (Figure 48). — Double hemstitching is a repetition of plain hemstitching on the opposite side of the drawn threads. Parallel bars are made. Take care to take up the same group of threads in the second row as in the first in order to give a parallel effect.

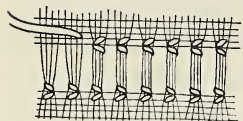


FIGURE 48

Diagonal or Rickrack Hemstitching (Figure 49). — Diagonal hemstitching is a variation of plain hemstitching. It starts with plain hemstitching on one side, care being taken to catch an even number of threads, as four, six, eight, etc. The diagonals are made by taking an even number of threads on the opposite side, midway between the groups of threads already caught. The stitches holding the groups of threads in place are made as for plain hemstitching.



FIGURE 49

Italian Hemstitching (Figure 50). — Work on the right side of the material from right to left, with the bulk of the material toward you and the smaller amount falling over your hand. A blunt needle and round linen thread are desirable to use. Two rows of threads are drawn, leaving a few threads between the drawn rows. The number of threads drawn and the number left in between depend upon the material and design to be used. A few running stitches are taken between the two rows of drawn threads to fasten the thread. Insert the needle from right to left at the top of the lower drawn threads under the first group of threads

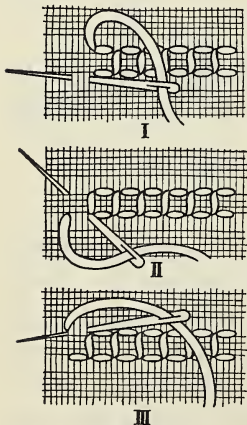


FIGURE 50

(I). Then draw the needle through, taking a stitch back over the same group of threads (II). Draw the needle through and

under the threads left between the drawn rows, so that it comes out at the bottom of the upper drawn threads, and directly above where the thread last came out in the lower row (II). The same group of threads are worked in both rows, as in double hemstitching. Take a stitch back over the group of threads of the upper row (III). Again insert the needle from right to left at the top of the lower drawn threads, catching the second group, and continue as before.

10. Decorative Stitches for Clothes. *Couching Stitch* (Figure 51).—Push the end of cording or heavy foundation thread through on the wrong side of the material with a stiletto. The cord is held in place by the left hand until it is fastened with a single stitch or variegated stitches made with a finer thread of any desired color. The stitches must be evenly spaced and close enough together to hold the cord in place.

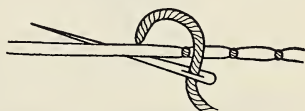
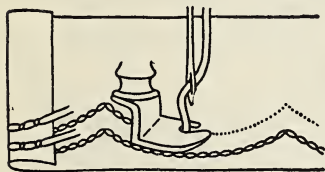


FIGURE 51

Cable Stitch (Figure 52).—The cable stitch, which is known as machine couching, is done on the machine. Stamp the design on the wrong side of the material. Thread the bobbin with a thread, floss, or tinsel heavier than the ordinary sewing thread. Thread the machine as usual. Loosen the upper tension so as to give the desired length to the stitch. Stitch on the wrong side of the material, following the stamped or outlined design.



DETAIL OF STITCH

FIGURE 52

Arrowhead (Figure 53).—This is a strengthening design used at the ends of pockets and seams.

Outline the shape of the arrowhead on the material. Insert the needle in the center of the arrowhead (I) and make a few

running stitches, drawing the needle through the material on the right side at 1. Insert the needle at the right side of 3 and make

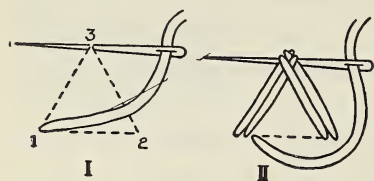


FIGURE 53

a tiny stitch toward the left at the top of the arrowhead. Draw the needle through and insert the needle at 2, bringing it out close to the first stitch taken at 1. Insert the needle again at 3 a little below the first insertion so that the threads lie parallel (II). Take a little stitch to the left at 3, as before, but a little deeper, and insert the

needle again at 2 so that the threads from 3 to 2 will lie parallel. Continue the stitches until the arrowhead is completed (III).

Crowfoot (Figure 54). — This serves the same purpose as an arrowhead but is more ornamental.

Outline the shape of the crowfoot in the material. Insert the needle in the center of the crowfoot and make a few running stitches, drawing the needle through the material on the right side at 1. Insert the needle at the right of 2 and make a tiny stitch toward the left at the top of the crowfoot (I). Turn the material to the left until 3 is at the top position and insert the needle at the right of 3 and make a tiny stitch toward the left (II). Again turn the material to the left, until 1 is at the top position, and make a tiny stitch toward the left. Continue the rotation of the material and stitches until the crowfoot is completed (III).

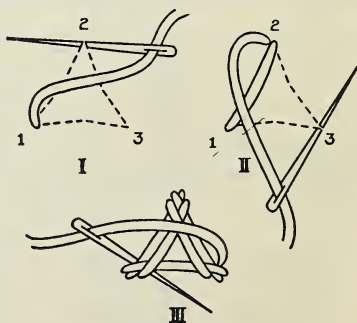


FIGURE 54

Bar Tack (Figure 55). — The bar tack is used to finish ends of seams, tucks, and set-in pockets. Make a long stitch at the end of the pocket opening, perpendicular to it. The stitch is made long enough to extend just beyond the machine stitching at the end of the pocket. Continue making this stitch until the desired number of stitches are made; that is, until the bar is as thick

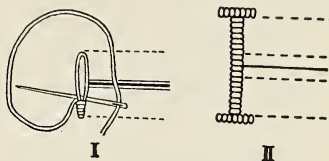
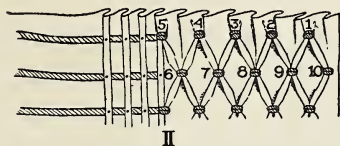
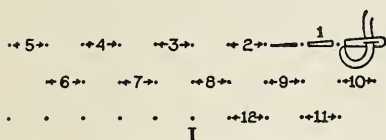


FIGURE 55

or heavy as is necessary. Care must be taken to make the stitch through the same holes each time and to draw the threads evenly. Working from right to left, make tiny satin stitches (Figure 41) over the long stitches. Continue until the bars are covered with satin stitches. The ends of this tack are finished



DECORATIVE SMOCKING

FIGURE 56

with a stitch that extends a little beyond each side of the satin stitch. The stitch is repeated through the holes until a secure fastening is made.

Smocking (Figure 56). — This is used for decorative borders to hold fullness in place and is made of ornamental stitches. The careful gathering of the material, which is the first step, gives the evenness and beauty to smocking. It takes about four times as much material as the width desired when smocking is completed.

If the material used is not one with a small, all-over or checked design, it should be carefully marked on the wrong

side with a series of evenly spaced dots. The design, weight of material, and amount of fullness desired will govern the space between the dots. They may be made one fourth, one half, or three fourths of an inch apart. Make the rows of dots one below the other, and the desired distance apart. The odd rows, as 1-3-5, etc., should have one less dot at the right end of the material, and the even rows, as 2-4-6, etc., should have one less dot at the left end.

Remember always that the careful gathering of the material gives evenness and beauty to smocking. Gathering threads are not necessary when the material holds a crease well, or has a design which will serve as markings, or on material that may be marked on the right side. If gathering is desired, mark the material on the wrong side. Then, with a strong thread, make a small running stitch at each dot. Start the gathering at each row at alternate ends. When it is finished, pull up the gathers the desired fullness, and fasten the ends securely. Turn the material to the right side, and even the gathers into straight, parallel, plait-like folds.

Using a rather heavy thread, start sewing at the top right-hand dot (I). Catch the first two dots together (marked 1 in diagram), taking only a few threads of the material for each stitch. Join the dots with two over and over stitches, then slip the needle on the underside and bring it out at the next dot (at the right of 2 in the diagram). Catch this dot and the next one together, as you did with the first two dots, and again slip the needle on the underside and bring it out at the next dot (at the right of 3 in diagram). Continue this process until the first row of dots is finished. For the second row, turn work upside down so as to work from right to left. The first and second dots (at 6 in the diagram) are caught together, joined with two stitches, and the needle slipped under the material to come out at the next dot (a little to the right of 7 in the dia-

gram). The row is completed exactly like the first row, but because the even rows have one less dot at the left end, and the odd rows have one less dot at the right end, the stitches appear not under one another, but alternately. Upon finishing row 2, the work is again turned right side around, and row 3 is worked exactly like row 1. The diamond design of the stitches is now clearly defined (II).

By skipping spaces, various designs may be worked out, and combinations of fancy stitches, such as outline, single and double cable, and zigzag chain (see pages 9, 10, section 7), may be used (III). Threads of two or more colors may also be used to vary the effect.

Punch Work (Figure 57). — Punch work is the joining of circles or squares so as to form a background of open work. A blunt needle is used. Make a plain knot and draw the blunt needle through the material at 1. Insert the needle at X and draw the needle out at 2. Again insert the needle at X and draw it through the work at 3. Continue in this way until the circle or square is finished. The second circle or square is made so that one side of the first forms one side of the second, thus giving the open-work effect (II).

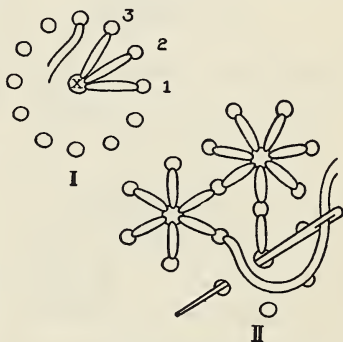


FIGURE 57

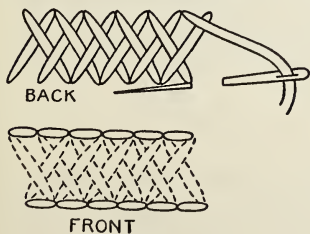


FIGURE 58

Shadow Stitch (Figure 58). — Work from left to right on the wrong side of the material after fastening the thread with a plain knot. Insert the needle to the left on the lower of two imaginary parallel lines, catching several threads. Draw the needle

through the material and insert it on the upper line, drawing it through just above where it was formerly inserted. Again insert the needle on the lower line and continue working until the design is finished; then press it on the right side so that the stitches may be more clearly seen.

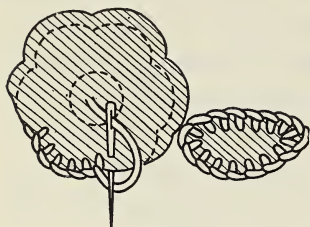
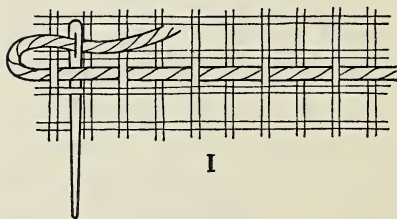


FIGURE 59

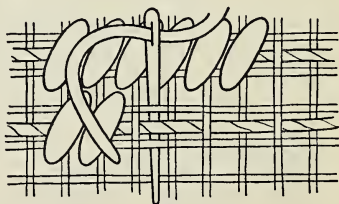
Appliqué (Figure 59). — Cut the pieces of material, allowing for seams, the desired shape and size and turn under the edges to the wrong side

$\frac{1}{8}$ inch, being careful not to stretch them. Baste the pieces to the garment and finish with the blanket stitch (Figures 40, 42).

Needlepoint (Figure 60). — Needlepoint canvas is required in order to give a smooth, even effect. The work may, however, be done on a heavy piece of cross-stitch canvas. It is necessary to place the canvas in a frame or hoop with the double threads running vertically. Use a foundation thread of yarn as the background and over this, with a large blunt needle, weave a few running stitches toward the upper left-hand corner of the pattern. All threads are fastened by weaving them into the canvas. With the needle pointed toward you, work from left to right, making diagonal stitches from square to square and carrying the yarn over the double vertical threads. Using the first row as a guide, begin at the same end



I



II

FIGURE 60

of the pattern and continue to work until the pattern is finished. Different colors, hefts of yarn (see section 13), and slants of stitches add to the variety of design.

11. Tatting. *Foundation Stitches* (Figure 61). — Take the thread between the first finger and thumb of the left hand and with the thread over the back of the fingers and around again to the thumb and first finger, make a loop. The fourth and little fingers hold the thread in place and rest against the palm of the hand. The third finger holds the thread taut. The shuttle is held in the right hand between the thumb and first finger with the hook of the shuttle toward the back of the hand, and the thread of the shuttle toward the fingers. The third finger of the right hand holds the right-hand thread up and taut.

There are two steps to the tatting stitch: first, the shuttle is placed under and over the loop in the left hand between the first and second fingers. After making a stitch the thumb and first finger are held

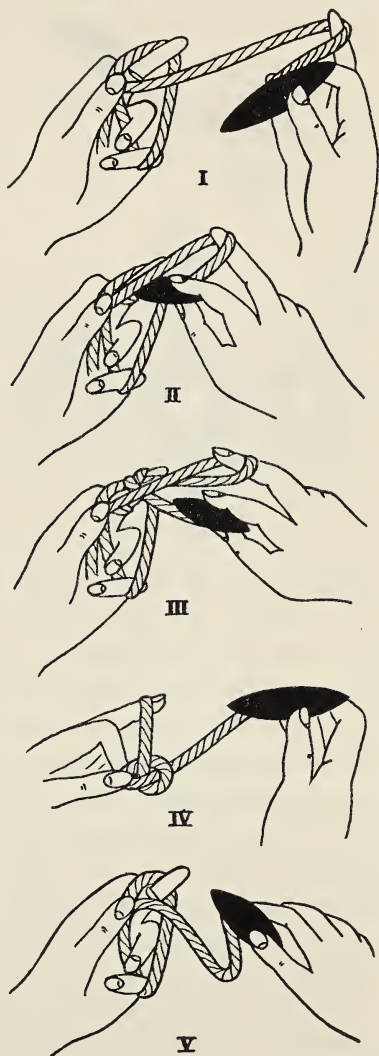


FIGURE 61

rigid, and the shuttle is pulled back until the thread is taut. The third finger of the left hand then is raised to pull the stitch firmly in place; second, the stitch proceeds as before except that the shuttle is placed over and under the loop. These stitches form the foundation for all tatting stitches.

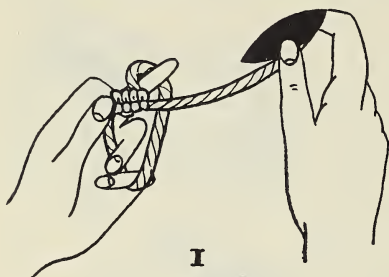
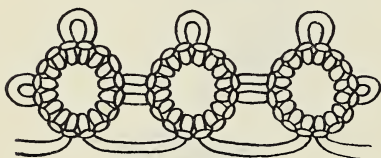
**I****II**

FIGURE 62

Single Rings (Figure 62). — Take tatting position. Tat four stitches. The first part of the fifth stitch is drawn up within $\frac{1}{4}$ inch from the fourth stitch. The second part of the stitch is made and then is drawn tightly, forming a loop. Then make four more stitches and the fifth a loop, four more

stitches and the fifth a loop, and four more stitches. Next, draw the ring up while holding it firmly between the thumb and first finger of the left hand. Skip the diameter of the ring and make the first stitch of the second ring. Tat four more stitches, then draw the thread around the hand through the last loop of the preceding ring. Draw the loop up large enough to pass the shuttle through. Draw the thread of the loop around the hand, back into place. Continue making the ring as before.

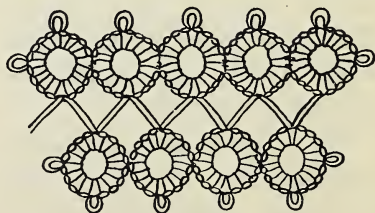


FIGURE 63

Double Rings (Figure 63). — Take the tatting position. Tat one single ring and skip the distance of the diameter of one ring and make four stitches. Attach to the last loop of the first ring

as for single rings. Finish tatting the ring. Skip the diameter of the ring, tat four stitches and attach to the last loop of the second ring. Finish tatting the ring. Continue making the rings as before.

Clover Leaf (Figure 64). — Take tatting position. Tat a ring. Do not skip any distance but start tatting the second ring at the base of the first. Tat four stitches and join to the last loop of the first ring. Continue tatting until ring is finished. Make the third ring from the base of the second and first. Tat four stitches and join to the last loop of the second ring. Continue until ring is finished. The three attached rings form the clover leaf. For the second clover leaf skip the distance of the diameter of the clover leaf. Tat four stitches and a loop. Tat four more stitches and join to the middle loop of the last ring. Continue making the ring and the rest of the clover leaf.

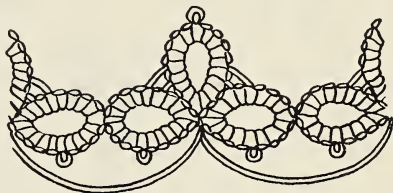


FIGURE 64

Many variations and patterns may be worked out and fancy braids may be worked in with the tatting design. The simple patterns done in fine thread make a dainty edge.

The short loops launder better than the longer ones. Yard tatting may be laundered satisfactorily by winding it around a bottle and washing it with a small brush and soap.

12. Crocheting. *Chains* (Figure 65). — In all crocheting a hook in proportion to the thread is used. In many patterns the correct sizes are given. If they are not, it may be necessary to experiment until right results are obtained. The thread may be of cotton, silk, or wool; the hook of metal or bone. Make a slip loop at the end of the thread and slip the crochet hook through it. The thread is held in position by starting at the palm of the

hand and wrapping the thread around the little finger of the left hand. Then bring the thread to the back of the hand and over

the back of the other fingers. The loop is held between the thumb and second finger of the left hand, and the first finger and thumb hold the thread tightly at the end of the hook; while the tip of the little finger is pressed to the palm of the hand, the third finger keeping the thread taut as the stitches are made.

Bring the hook to the left and under the thread. Draw the thread that is around the needle through the loop and continue in this way, always drawing the

thread through the last loop to form a chain of the desired length.

Single Crochet (Figure 66).—Make a chain of stitches the desired length. Skip two chains,* insert hook in next chain (counting backward along line of chain stitches), thread over hook and pull through chain. There are now two loops on the hook. Put the thread over and pull through both loops. Keep repeating

from * until row is finished, turn, and repeat. Turn, chain two, and repeat.

Double Crochet (Figure 67).—Make a chain of stitches the desired length. Skip three chains,* thread over hook and insert in next chain, thread over hook and pull through chain, thread

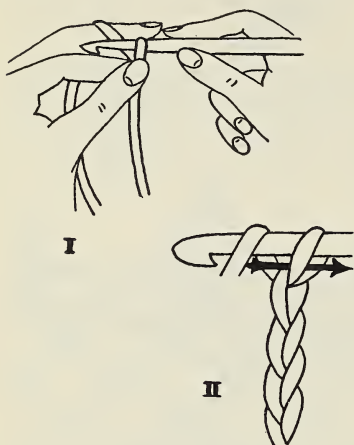


FIGURE 65

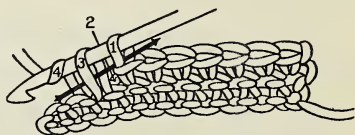


FIGURE 66

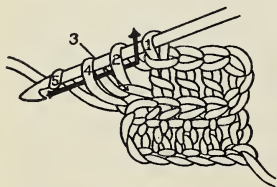


FIGURE 67

over hook (5) and pull through two loops (4, 2) thread over and pull through two loops (5, 1). Repeat from * until row is finished. Turn, chain three, and repeat.

Yarn Flowers (Figure 68). — Use a medium-size bone crochet hook. Chain nine stitches and join the two ends with a stitch. Chain five more stitches, skip two stitches on the ring, and make a stitch into the third. Chain five more stitches, skip two stitches on the ring, and make a double chain. Stitch into the third. Again chain five more stitches, skip two on the ring, and make a double chain, and stitch into the third. This will make a ring of stitches with three loops of stitches around it. Single crochet around the three loops and draw the thread through at the last stitch, leaving nine inches of thread so that the end of the thread can be drawn through the center-back of the flower (II). Two different shades of one color may be combined into one flower, using the darker shade for the center. Larger flowers may be made by making the center ring larger and the loops in proportion. It is always necessary to have an uneven number of stitches. Buds may be made by double crocheting around the single ring of stitches.

Crocheted flowers and buds may be joined and used as decorations for hats, bags, and sport garments. A handy inexpensive and attractive pin may be made by grouping flowers and buds on a yarn-covered safety pin (VI). Sets may be made for cuffs and collars of sport garments by using small safety pins for the cuffs and a larger one for the collar.

A two-inch safety pin with openings at both ends, large enough to allow a bone crochet needle to enter, should be used as a base for the pin. The leaves are made by chain stitching seven stitches and then by going back and double crocheting (Figure 67) into each of the seven stitches. Without cutting the thread, make another leaf in the same manner. Draw the last stitch through the hole at the end of the closed safety pin. Make as many stitches

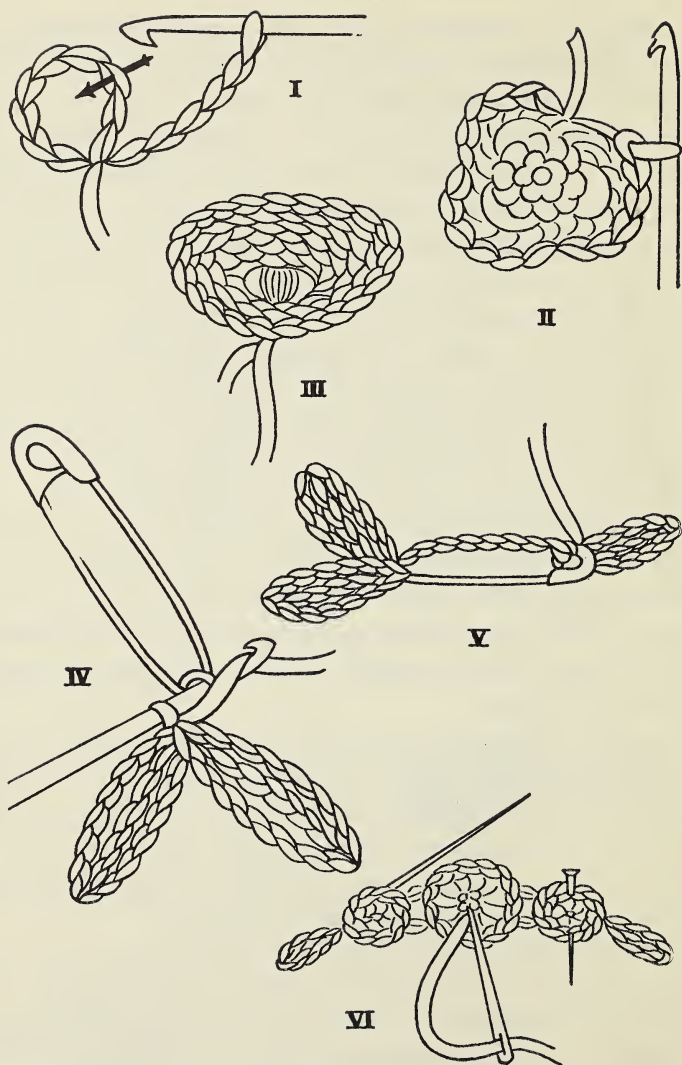


FIGURE 68

through the hole as the heft (see section 13) of the thread will permit. With the crochet hook, make a close tight buttonhole stitch along the top of the safety pin until the top of the pin is covered. Fill the hole at the point of the pin with as many stitches as possible. Make another leaf in the same way as the others were made. When completed, fasten the leaf by making a crochet stitch through the buttonhole stitch at the base of the leaf. Double crochet along the top of the buttonhole stitch and fasten the yarn securely at the base of the two leaves.

The flowers are attached by sewing them to the closely covered safety pin, using the yarn that was left at the back of each flower to stitch it in place. Arrange the flowers on the pin by first sewing one at each end of the pin and then carelessly filling in the other flowers.

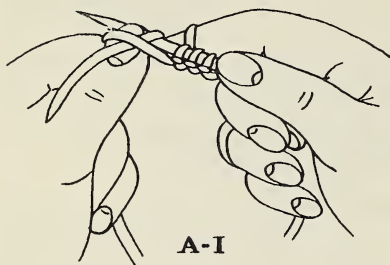
Yellow or orange single yarn or double silk rope floss wrapped once around a darning needle may be used to make the flower centers (Figure 35). The thread need not be cut after making each center but may be woven through the back of the flower to the next flower center.

13. Knitting (Figure 69). — “Knitting is supposed to have been invented in Scotland. As the knit garments became more and more popular their use was adopted throughout England and gradually found their way across the channel to France and to other parts of Europe. Yesterday girls were taught to knit almost as soon as they could hold the needles, and this is the condition in many countries today.”

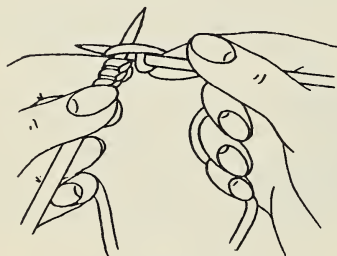
Knitting necessitates the use of two or four needles (made of metal or bone) and of wool yarn of various hefts. The word *heft* means weight; and we do not talk about the size of a thread of yarn, but the weight of the skein of yarn. The coarser or heavier yarns are made of more twisted strands than the finer or lighter yarns. The size of the needle chosen depends upon the heft of the yarn; and the knitting can be measured

by so many stitches to the inch. When knitting with two needles, one is held in the right hand and one in the left.

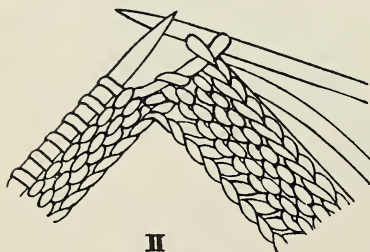
The first step in knitting is to cast the proper number of stitches on one needle. This may be done in two ways. (A-I) Make a slip stitch in the end of the yarn and slip the loop over the right-hand needle. Hold the yarn in the palm of the left hand, and wrap it around the left thumb. Insert knitting needle under yarn on top of thumb and transfer this loop to the needle. Wrap yarn held in palm around thumb again, and pick up the loop with the needle as before.



A-I



B-I



II

FIGURE 69

The second way of casting on (B-I) is as follows: make a loop in the yarn and slip it on the left-hand needle. Slip the right-hand needle through the loop, * put the yarn over the needle and draw it through the loop, slip this loop on the left-hand needle, slip the right-hand needle through the loop just made

and repeat from * until the desired number of stitches are on the needle.

When the knitting is finished, the binding or casting off is

done as follows: (II) Knit the first two stitches as always. Insert the needle into first stitch and pass this stitch over the second stitch on the needle (right-hand needle), * knit the next stitch on the left-hand needle onto the right-hand needle, pass the stitch already on the right-hand needle over the second stitch, and repeat from * until row is bound off. Break the yarn, slip the last stitch off, and pull the thread up tight through this stitch.

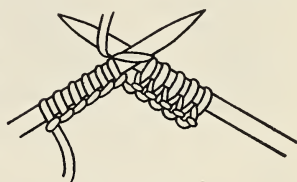


FIGURE 70

Plain Knit (Figure 70). — After the required number of stitches are on the needle, slip the right-hand needle into the last stitch made. Bring the yarn up under this needle, and between the two needles, and draw it through the stitch. Slip the stitch from the left-hand needle to the right. Continue in this way until all the stitches are on the right-hand needle. Change the right-hand needle to the left hand and continue as before.

Purl (Figure 71). — To purl, bring the yarn in front of the right-hand needle. Slip the right-hand needle into the front of the stitch on the left-hand needle. Place the yarn around the back of the needle as it passes in the stitch, catch it in and take off. Always place the yarn back of the needle after a purled stitch before knitting a plain stitch. In any kind of knitting, the first stitch is slipped, not knitted.

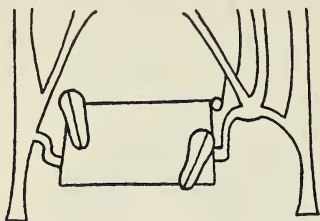


FIGURE 71

4. USE OF THE SEWING MACHINE

14. Treadling the Machine (Figure 72). — Before beginning to stitch, place the chair close enough to the machine so that it is possible to sit comfortably and squarely on the chair, in an upright position (C). Place the left foot on the upper left-hand corner of the treadle, and the right foot on the lower right-hand

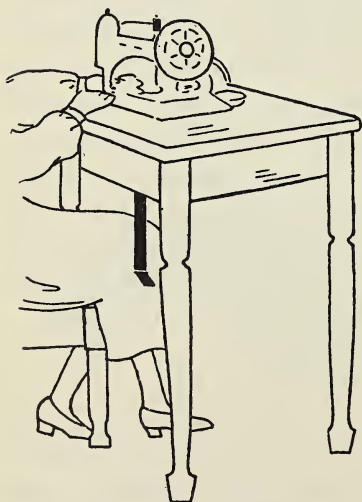
corner (A). Remove belt from balance wheel. To treadle smoothly at a moderate speed, press evenly on the treadle first



A



B



C

FIGURE 72

with the ball of the left foot and then with the heel of the right foot. Practice treadling, starting and stopping the machine until it can be done easily and smoothly. Then place the belt on the balance wheel and continue practicing until you can run the machine with ease. Electric machines are equipped with either a foot-control lever (B) or a knee-control lever. In using the latter, the right knee is pressed against the end of the lever (C) to start the motor and regulate the speed.

15. Stitching by Machine. —

When you think you have mastered correct treadling, prove it by doing the practical stitching exercises on page 327 and by winding the bobbin. The stitching exercises may be performed on paper. They teach the various uses of stitches and help one in learning to guide the material. Care must be taken never to pull on the paper or the cloth while stitching, because such strain will break the needle.

16. Threading the Machine (Figure 73). — The balance wheel is turned so that the needle is at the highest point. The spool of thread is placed on a spool pin, and the thread goes over the thread guide hook above the tension disc and around the tension disc from right to left and over the small wire spring; then under the thread regulator hook at the left of the tension disc, from right to left, *so that the wire guide will move up and down when the thread is drawn tightly*, through the take-up lever that moves up and down; then down around the small eyelet on the side of the face plate into the lower wire guide above the needle. Thread the needle and draw the thread under and behind the presser foot. The stitch is formed by looping the upper thread around the lower thread and pulling both threads tightly and evenly.

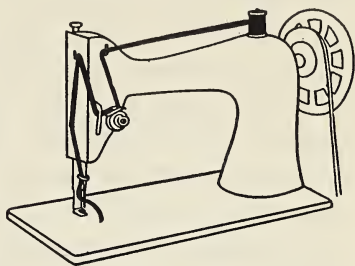


FIGURE 73

Winding the Bobbin (Figure 74). — In sewing on the machine, two threads are used, one of which is on the bobbin and the other is used in threading the needle. There are two types of bobbins, the round (A) and the long (B). When winding bobbins release the balance wheel and place the bobbin on the bobbin winder. Place a spool of thread on the spool pin and fasten the thread securely to the bobbin. Attach the bobbin winder and treadle until the bobbin is wound tightly and evenly with thread of suitable size for the material to be sewn. It should not be wound so full, however, that it is tight in the bobbin case on the shuttle.

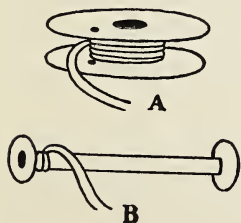


FIGURE 74

Decorative stitches may be made by using a contrasting color,

heavier thread, or a combination of the two on the bobbin. Place the bobbin in the bobbin case, or shuttle, taking care to draw the thread through the slot and the tension spring in the case, or shuttle. Draw the thread above the table of the machine by turning the balance wheel over toward you until the needle moves down and up again to its highest point, thus catching the under thread. Draw up the threaded needle and the under thread will come up with it through the hole in the throat place. Lay both threads back under the presser foot to avoid tangling of the thread when beginning to stitch.

Placing and Removing Fabric. — Place work in position, lower the presser foot, and stitch. *Be careful not to pull on the material.* The presser foot holds the cloth in place. The feed is under the presser foot and consists of small teeth which catch hold of the under side of the cloth and move it along. In removing fabric from the machine, place the needle and take-up lever at the highest point, raise the presser foot, and draw the fabric toward the back. Cut the threads, taking care to leave them long enough to fasten.

17. Governing Principles of Machine Stitching. — Although sewing machines vary as to makes, there are definite standards to be followed. The thread and material should always be kept equal in fineness. The needle should be only large enough to carry the thread. The length of the stitch should always be in harmony with the thread and material. The weight and weave of material determines the tension to be used.

Tension. — The tension is influenced by the size of the needle and thread and is adjusted so that both threads are drawn into the cloth equally, making the stitch look alike and even on both sides.

CHAPTER II

CONSTRUCTION PROCESSES

But, Goody, tell me where, where, where's the Seam?

— JOHN WOLCOTT



FAMILIARITY with the various stitches used in plain sewing is all very well, but not of much value until it is put to use. In the preceding chapter many stitches have been described and illustrated for you. Now you ask: "How are these stitches to be used in the process of making a garment?" Well, there are seams to make and hems to turn; gatherings and shirrings and tucking to put

in; fine plaits and wide plaits to measure and press; bindings to hold seams firm; and pipings for trimming. In each of these processes, you will use one or more of the stitches explained in Chapter I. That chapter presented construction stitches; this new chapter takes up construction processes, also with full directions. Study carefully the directions, follow them, practice them, and let it be a matter of pride with you to take care that your seams never pucker, that your hems never bunch, and that your bias bindings are never uneven.

18. Seams. — A seam is a line of stitching joining together two or more pieces of material. It varies in kind with its position on the garment and the weight of the fabric, but it should always be securely made.

Make a test seam from scraps of the material of the garment in order to adjust the length of stitch and to determine the size of

thread to be used. Heavy material requires a longer stitch than sheer material. Weaves and weights of materials determine the stitch to be used.

The following are a few general rules to follow in making seams :

1. Never let the weight of the material pull on the presser foot. Always hold the material toward you in stitching.
2. Stitch curves, thin material, and laces after they have been tacked on paper. Notches are necessary on the outer curve of a curved seam, and slashes on the inner curve.
3. Stitch seams from the large bias to the narrow, as from the neckline to the arm in a shoulder seam. In joining a bias piece to a straight piece of material, the bias side should invariably be held toward the worker. If so held, the goods will not stretch.
4. Seams should be *elastic*, but never tight.
5. In seaming pressed nap material, stitch the way the nap is pressed.
6. In basting seams that have fullness, hold the fullness toward you.
7. If one seam crosses another, the first one to be stitched must always be opened and pressed before joining the crossed seam. One half the secret in good sewing is pressing as you go, because it blends the seams together.

Plain Seam (Figure 75). — This seam has two raw edges stitched together by machine or hand.

Place the two right sides of the material together and baste from the raw edge the desired width of the finished seam allowing

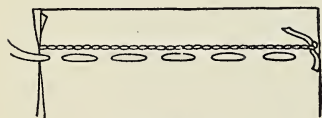


FIGURE 75

for edge finish. Stitch as near the basting as possible, without sewing on it. Remove basting and press the seam open. It may be necessary to dampen the seam before pressing.

French Seam (Figure 76). — This seam is made by sewing two plain seams so that the raw edges are concealed within.

Place the two wrong sides of the material together and baste $\frac{1}{4}$ inch from the raw edge. Stitch as near the basting as possible (I). Remove the basting and trim $\frac{1}{8}$ inch from the stitching (II). Press the plain seam flat, turning the raw edges in

the same direction. Turn the material to the wrong side and with a warm iron press the seam in place, taking care that the line of stitching in the plain seam comes directly on the fold (III). Stitch $\frac{1}{4}$ inch from the folded edge (IV). Press the finished seam so that it will turn toward the front of the garment.

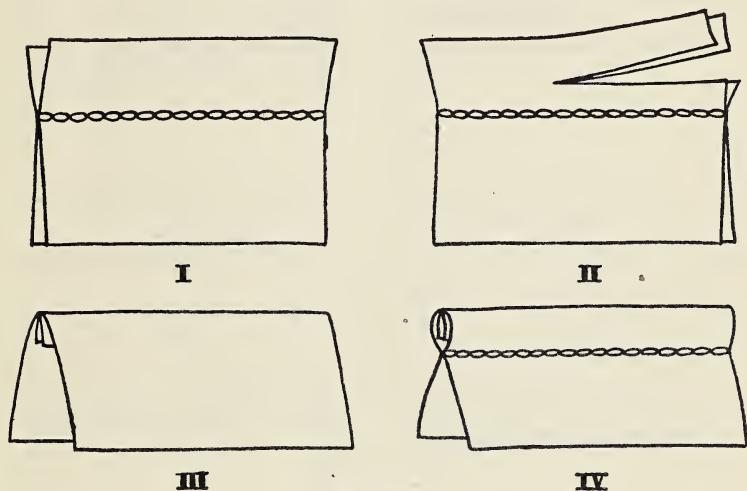


FIGURE 76

Flat Fell (Figure 77). — This is a seam finished with a lap and two lines of stitching on the right side. It is used where durability is desired.

Place the wrong sides of the material together and baste $\frac{1}{2}$ inch from the raw edge. Stitch as near the basting as possible without sewing on it. Remove the bastings and trim one side of the seam $\frac{1}{8}$ inch from the stitching (I). Fold the wide side so that the raw edge will touch the machine stitching and overlap the trimmed edge. Press the folded side flat with the raw edges concealed (II). Baste the fold flat and stitch on the machine, as near the folded edge as possible (III). If a hemmed fell is desired, the seam is held in place with hemming stitches. Re-

move the bastings and press. The lap seam is finished with a lap on both right and wrong edges of the garment basted to-

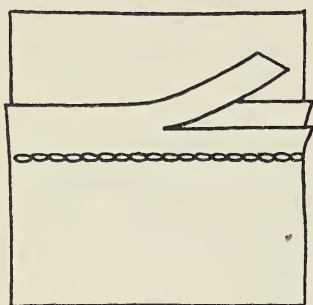
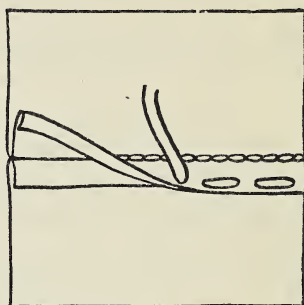
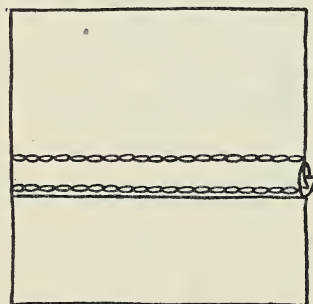
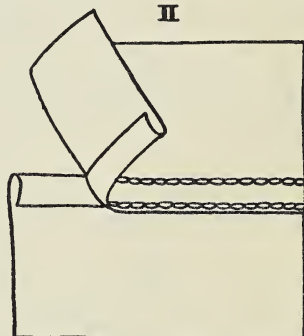
**I****II****III****LAP SEAM**

FIGURE 77

gether so that the folds are $\frac{1}{4}$ inch apart and stitched as for a flat fell seam.

Standing Fell Seam (Figure 78). — This seam is used to join a gathered edge to a plain edge. Place the two right sides together. Baste and stitch as for a plain seam. Trim the gathered edge $\frac{1}{8}$ inch from the stitching. Turn the wide edge under $\frac{1}{8}$ inch and press. Fold

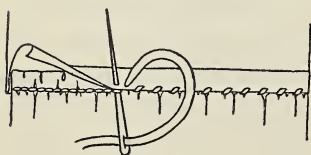


FIGURE 78

the wide edge to the line of the stitching and baste. The folded edge is held in place with the catch hemming stitch (Figure 18) and resembles a binding when finished.

Stitched Edge or Commercial Seam

(Figure 79). — Place the two right sides of the material together and stitch as for a plain seam. Press the plain seam open and with a warm iron press the raw edges under the fold toward the seam. Stitch evenly with the machine along the folded edges, but not to the material.

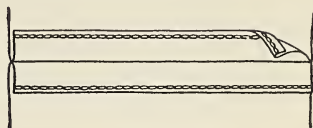


FIGURE 79

Welt Seam (Figure 80). — Place the two right sides of the material together and stitch $\frac{1}{2}$ inch from the edge. Press the

seam in the desired direction and cut the under edge to within $\frac{1}{4}$ inch of the stitching. On the wrong side, press the seam flat and baste with the wider edge on top. Stitch on the right side of the material $\frac{1}{3}$ inch from the seam line.

This line of stitching will be the only

one to show on the right side. Finish the raw edge as desired.

Flannel Seam (Figure 81). — Place the two right sides of the material together and stitch $\frac{1}{2}$ inch from the edge. Press the seam in the desired direction and cut the under edge to within $\frac{1}{8}$ inch of the stitching. Trim the upper edge so that it is even and stitch it down with the catch stitch. (Figure 30.)

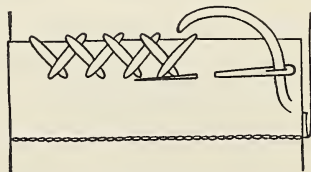


FIGURE 81

Picoted Seams (Figure 82). — Place

the two right sides of the material together and baste $\frac{3}{4}$ inch from the edge. If the basting is done in the same color as the hemstitching it need not be removed. Stitch with the machine

on the basted line. Press the seam with a warm iron. The seam is then machine hemstitched twice, directly on the line

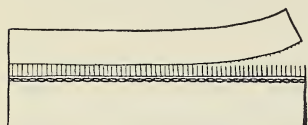


FIGURE 82

of stitching, to give a firm seam that will not pull out. Picoting is machine hemstitching cut through the middle. Press the hemstitched seam carefully on the wrong side of the hemstitching and stitch the

inside edge of the hemstitching on the machine. To make the picoted finish, cut the hemstitching in two, close to the outer edge, as this makes a more secure finish. Where dainty, decorative seams are desired the picoted seam proves very satisfactory and may be made on the right as well as the wrong side of the garment.

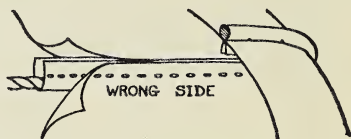


FIGURE 83

Corded Seams (Figure 83). — A cord is covered with a bias strip (Figure 104) and placed between the two edges of a plain seam. Because of the cording the seam must be stitched by hand or with a one-sided presser foot in order that the cording may be firmly held in the seam.

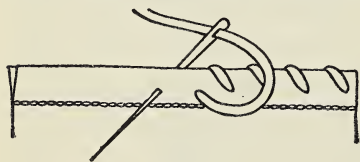


FIGURE 84

Overcasting (Figure 84). — Press the seam together or open and finish the raw edges with the overcasting stitch (Figure 12).

Pinking (Figure 85). — Press the seam and pink (notch) the two raw edges with a pinking machine or by hand. If the pinking is done by hand, care must be taken to keep the notches uniform. Press the seam open, after pinking is completed. This method of seam finishing is one of

19. Finishes for Plain Seams.



FIGURE 85

the most satisfactory because it saves time and allows the seam to give.

Binding (Figure 86). — Press the seam open or together and stitch the right side of a $\frac{1}{2}$ -inch binding to the right side of the seam to be bound. The binding is turned to the wrong side and the raw edge pressed under $\frac{1}{8}$ inch. Place the folded edge to the line of stitching where it is held in place by the hemming stitch. (Figure 18).

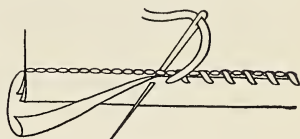


FIGURE 86

Turned (Figure 87). — Press the seam open and press the raw edges under the fold toward the seam. Stitch evenly with the machine along the folded edges.

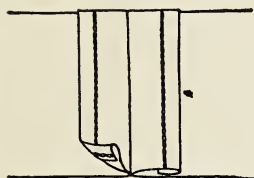


FIGURE 87

Picoting (Figure 88). — Press the seam together or open; then machine hemstitch the edges of the seam together; next press on the wrong side; and finally cut close to the outer edge to make the picoting more firm.



FIGURE 88

20. Tailor's Tacks (Figure 89). — Tailor's tacks are used to mark seams and perforations. They are made before removing the pattern from the material. Insert the needle, threaded with a double thread, into the material at the marking on the pattern and take a tiny stitch. Take another stitch on top of the first, allowing the second stitch to form a $\frac{1}{2}$ -inch loop, and cut the thread. If the markings are close together, the thread need not be cut after each tack is made but may form a continuous row of long stitches which need not

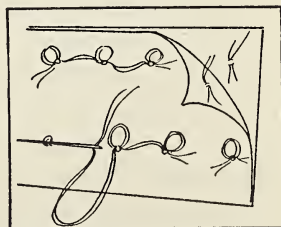


FIGURE 89

be cut until the pattern is to be removed. Clip each long stitch, separate the material, and cut the threads in the center, leaving half in each section. The ends should be long enough to twist so that the tailor's tack will remain in the cloth securely.

21. Darts (Figure 90).— Before making the dart, establish the placement of all the darts (pages 222, 223) and pin the two

right sides of the material together along the established dart line. Press the dart along the folded edge. Make a dart pattern out of stiff paper by folding the paper, measuring down from the top, and marking on the fold the length of the dart (I). Mark at the top away from the fold, the width of half of the dart and connect the two points with a straight line. Start at the top of the dart and taper it gradually inward to the point. The point of the dart should be gently tapered off at the end to form a pleasing

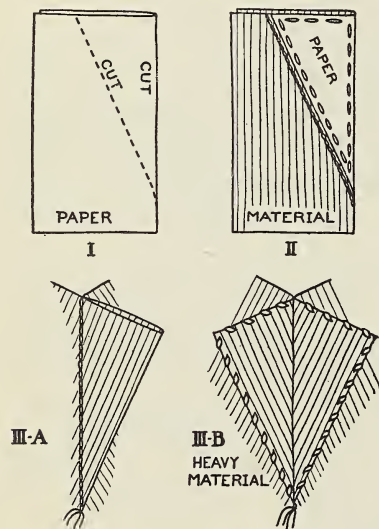


FIGURE 90

ing curve. This prevents puckering. The excess fullness at the end of the dart is removed when it is steamed and pressed on the wrong side over a curved surface. Cut the paper dart along the inward established line, then cut along the fold. This gives two dart patterns to be used on opposite sides of the garment. By using dart patterns an accurate dart may be made with little effort. Place the cut fold of the paper pattern on the fold of material and baste along the fold to the point and around the paper pattern, taking care to keep the top of the dart pat-

tern even with the folded edge of the material (II). Starting at the point, stitch with the machine as near the paper pattern as possible without touching it.

Remove paper pattern (III-A).

After the dart has been steamed and pressed on the wrong side of the material, tie the threads at the end of the darts with the square knot (Figure 5). Darts may be stitched on the right side to give the effect of tucks (see page 50). If heavy material is used, the dart is cut on the fold and steamed and pressed open instead of close against the fabric. Press toward tapering end of the dart. The raw edges may be finished by overcasting or binding (III-B). *Always avoid a sharp angle at the end of a dart.*

22. Gathering (Figure 91). — A long fine needle and a coarser thread than would otherwise be used are required for gathering. The thread should be longer than the length to be gathered. Fasten the thread with a plain knot or a secure backstitch, and make several rows of tiny run-

ning stitches (Figure 11). The running stitches are made entirely with the right hand holding the needle and material between the thumb and first finger while the left hand holds

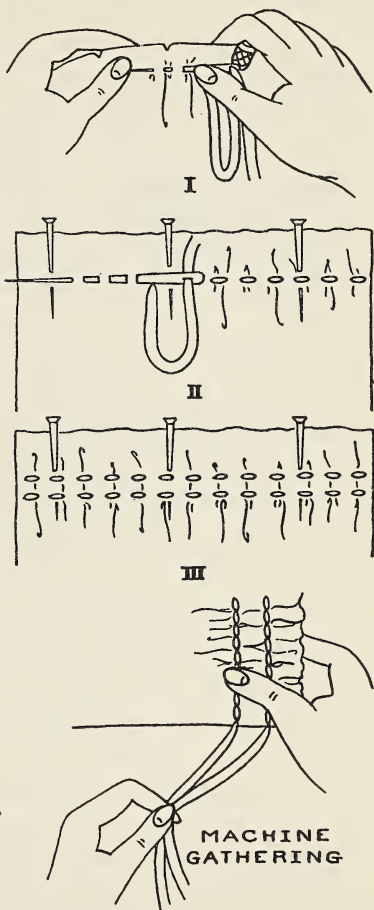


FIGURE 91

the material in position to work (I). The gathers should be evened as work progresses (II). The second row of gathering stitches is made $\frac{1}{8}$ inch below the first, care being taken to keep each stitch exactly under the one above (III). The two rows of gathering hold the fullness in a secure position. After the gathering threads have been put in, draw them up to the desired length of fullness, and even the gathers by stroking. To stroke the gathers, the material must be drawn very tightly upon the gathering thread. Tack this surplus amount of thread to the material so that the gathers will not slip. Hold the material in the left hand between the thumb and fingers and draw it over the first finger of the left hand with the right hand, creasing the gathers as they are being drawn over the finger, so that they will be flat. After this process of stroking has been finished, release the thread and space the gathers to fit the article to which it is to be attached. Scant gathers require $\frac{1}{4}$ more than the desired measurement; medium gathers $\frac{1}{2}$ more, and full gathers twice the desired measurement. Gathering may be done by machine, and the spacing is more accurate than when done by hand, but not so effective. The advantage of machine gathering is that the thread may be broken without destroying the gathers already made. Machine gathering is far more quickly done, and should always be used when possible. Slightly loosen the upper tension and make one or more parallel rows of stitching. Fasten the threads firmly at the end of each row. Pull up the under thread of the machine stitching the desired length of the gathered section.

Garment Bands (Figure 92). — Bands are usually cut lengthwise of the material. Cut the band about $2\frac{1}{2}$ inches longer than the desired length to allow for placket lapping, and twice the width plus seam allowances (I). Turn back the end $\frac{1}{2}$ inch to the wrong side and press with a warm iron. Mark this band into four equal parts. Bands may be placed to the right or

wrong side of the garment, depending upon the stitching to be used. If the last stitching is to be done by hand, place the band to the right side of the garment, first matching the marked halves and quarters (II). If both stitchings are to be done by machine, apply the band to the wrong side, matching marked halves and quarters. Space the garment so that the gathers lie even and baste it to the band. Stitch a $\frac{1}{4}$ -inch seam. Turn the seam up-

ward and turn in the ends of the other edge of the band. Bring the folded edge over the first stitching and either finish by hemming the fold by hand or by machine stitching (III). Stitch the ends of the band together and press with a warm iron.

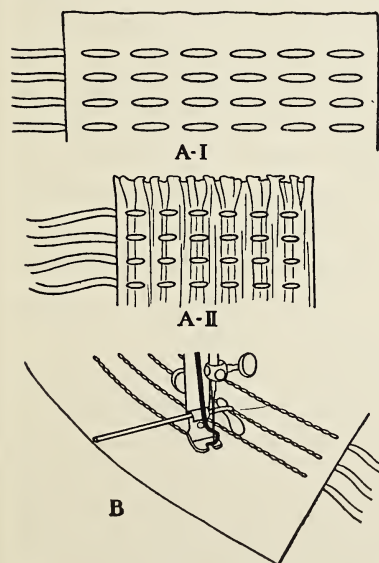


FIGURE 93

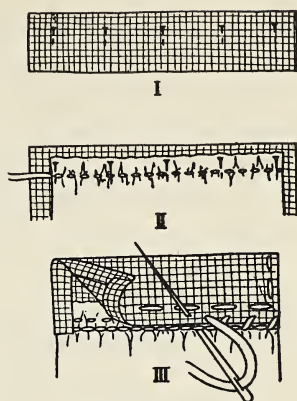


FIGURE 92

Shirring (Figure 93).—Fasten the thread securely with a knot and make several rows of gathers (Figure 91), being sure to keep the rows of gathers equal distances apart and each stitch directly under the one above (A-I). A cardboard gage is convenient to use to keep the rows equal distances apart. One side of the cardboard is notched, one edge of each notch at a right angle to the edge. Stitches may be long

on the inside and short on the outside. The shirring thread should be long enough to fit the space without fastening. Machine shirring may be done by loosening the tension and using the gage attachment which comes with the machine (B). Creased rows for shirring may be made by folding and pressing the material in the desired width for shirring.

Ruffles (Figure 94). — These are used to give fullness to a garment and for trimming. The kind of ruffle used depends upon design, material, and use of the garment. It may be cut straight, bias, or circular. A straight ruffle requires more fullness than a bias ruffle, but the circular ruffle requires no fullness whatever. Divide and tack the straight or bias ruffle on garment in equal proportion as for gathering (Figure 91) and, with a thread long enough to eliminate fastening, make a single row of gathering stitches (I). Even the gathers by jerking instead of stroking (II). Finish with binding, bias tape, or French seam (III).

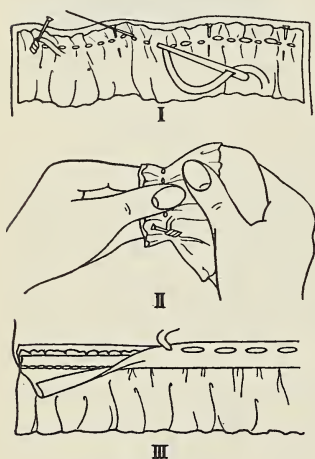


FIGURE 94

All seams should be as flat as possible. Ruffle fullness averages one and one half the ruffle space. Ruffling should be done by machine when suitable, as the gathers are thus laid more evenly than when done by hand.

23. Tucks (Figure 95). — Tucks serve for decoration, or to give fullness, and they must be stitched through both thicknesses of the fold. Tucks may be made on the straight or bias and a combination of cross-tucking is effective. They may be on either the right or wrong side, and width and spacing should be carefully considered. Fine thread should be used. The tucks are pressed in with a warm iron on the side where they are to appear

when finished. Tucks at the shoulder should turn toward the armseye. With the material held toward you, fold it where the first tuck is desired and press. Using a gage, made of cardboard, the width of the distance from one fold to another, press in the next tuck (I). Continue until the tucks are all creased. Make another cardboard gage the desired width of the tucks and hold the side closely along the pressed fold of the tucks. Baste along the edge of the gage and then stitch along the basted line (II). Press the tucks in the desired direction. Draw the end threads to the wrong side and tie with the square knot (Figure 5). Tucks must be evenly and accurately stitched to be beautiful. A tucker with a gage is the most satisfactory for making tucks without basting. Always use time-saving devices when possible. Curved lines can be made with the very finest pin tucks.

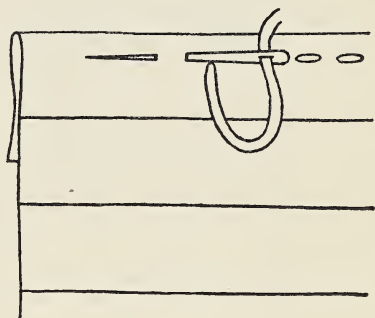
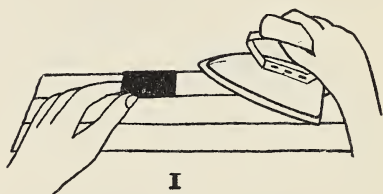
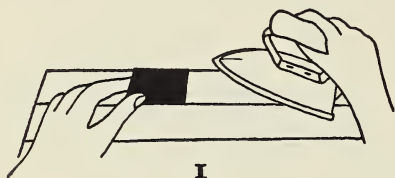


FIGURE 95

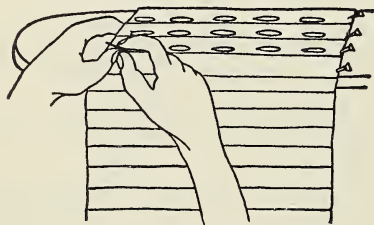
24. Plaits (Pleats). — Plaits serve for decoration and fullness, and give a tailored effect to the garment. They should be made of fabrics that hold a pressed crease well. Hems, seams, and edge finishes should be made before the plaits are put in. Seams should be hidden under plaits wherever possible. The average plaited skirt in which the plaits just meet requires three times the hip measure for plaiting. Take the desired skirting and stitch all seams except one.

It is often desirable to have small plaits done at a shop. Before removing the paper from shop plaiting, the top of the plaits should be stitched on the machine to hold them in place. The paper may then be removed. Position, width, and spacing of plaits should be carefully determined before the creasing is

begun. If stitching is desired, the plaits should be evenly stitched through three thicknesses of the fabric.



I



II

FIGURE 96

Knife Plaits (Figure 96).— Place the material on the ironing board with the material toward you. Then fold one end of the material so that the two wrong sides are together, and mark the distance where the first crease is to come in the first plait. Press. With a gage, take one and a half times width of folded plait; mark and make the second crease (I).

After pressing each crease, move the creased material, which is lying on top, toward you and continue in this way until all the creases are pressed for the plaits. Place the material so that the wrong side comes next to the ironing board. Match the first crease to the second and baste the creases firmly together. Match the third and fourth creases and baste. Continue until the plaits are basted in place (II). Press the plaits with a damp cloth and hot iron. A strip of cloth or paper may be laid between plaits so that the imprints of the lapping plait will not show. Knife plaits turn all one way, and the edge

of the plait looks like the side of a knife. The plaits are not stitched.

Box Plait (Figure 97). — Press the material as for knife plaits. When the creases are folded, match creases 2 and 3, 4 and 3, 5 and 6, and 7 and 6, being sure to baste as you go along. Continue in this manner until all plaits are matched.



FIGURE 97

Inverted Plait (Figure 98). — Press the material as for knife plaiting except that the material is folded with the two right sides together instead of the two wrong sides. Match creases 1 and 2, 3 and 2, 4 and 5, and 6 and 5. Continue until all the plaits are laid in place, being sure to baste as the creases are matched.



FIGURE 98

Kick Plait (Figure 99). — Baste a piece of stiff paper on the wrong side under the position of the plait. Mark

the location of the plait on the paper and stitch once along each side of the line of marking. The material which is to be set in, to form the plait, is cut 2 inches longer than the length of the plait and 5 inches wide. Crease and press this piece directly in the center with the two wrong sides together. Place the right side of the set-in-piece to the right side of the garment and baste from the bottom of the plait up, taking care to keep the creased fold and plait-marking even. Stitch on the stitched line. Cut the material at the position of the plait on the line of marking between the stitchings (I). At the top of the plait, clip the corners the desired width of the seam so that it forms a V. Turn this added piece through the slashed opening to the wrong side and baste so that the plain seam can not be seen from either side (II). Cut another piece of material the same size as the first and baste and stitch the two pieces together

with a plain seam (III). Press the plait. Turn the garment to the right side and make a triangular stitching at the top of the plait (IV), and on the

wrong side finish the top by over-casting. Remove the paper from the plait and pink the raw edges of the seams. Press the plait and remove the bastings. Slash the seam above the hem or facing at the bottom of the garment so that the plait will hang perfectly straight.

25. Godets (gō'dāy') and Flares (Figure 100). — Godets and flares are used to add fullness to garments. They are usually inserted in seams, though slashes may be made for this purpose. The shape of godets and flares is usually a triangle that has a tapering point or very narrow width at the top and a wide circular bottom. The sides may be straight or curved in toward the center as illustrated. The shape depends on the design of the garment. As a rule,

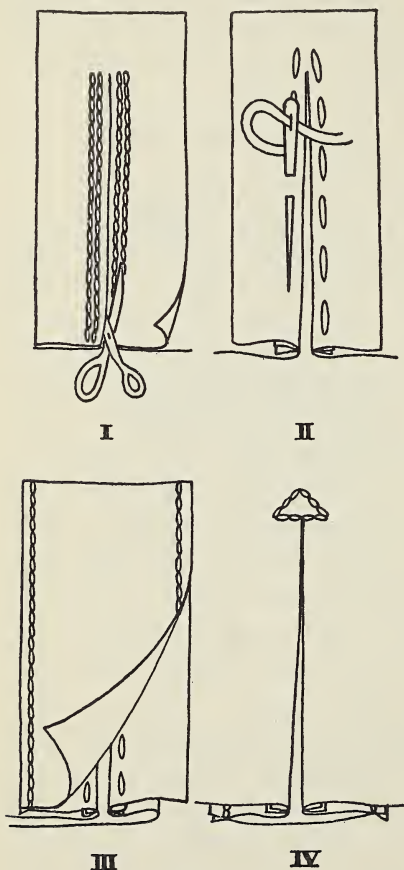
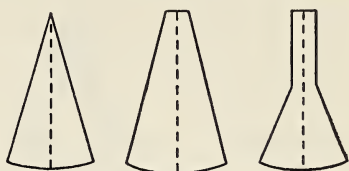


FIGURE 99

flares extend from the hip or waist line, while godets are inserted below the hipline. There are two methods for sewing in godets and flares. If a tailored finish is desired, stitch on the right side. If an inconspicuous finish is desired, stitch

the seam on the wrong side. The seams in both methods will be finished according to kind of material and style of garment. Pinking is the quickest and most satisfactory, as the plain seam gives a smoother seam on curved edges. The bottom of the godet or flare will be finished like the rest of the hem. Since the bottoms of godets and flares are curved, picoting, bias bindings, and facings are the best finishes to use.



3 TYPES
FIGURE 100

Tailored Godets and Flares (Figure 101). — Baste a $\frac{1}{4}$ -inch seam to the wrong side around edges to be stitched. Carefully pin

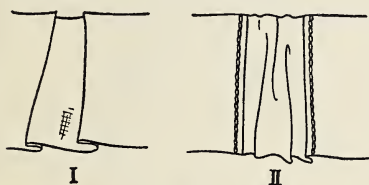


FIGURE 101

and baste to the right side of the garment, taking care to match all markings and to lap the flare or godet enough to allow for a serviceable seam. Press along the seamline. Stitch close to the creased fold (II).

Several rows of stitching may be used if desired. Remove the bastings and press.

Inconspicuous Godets and Flares (Figure 102). — Place and pin the right side of the godet or flare to the right side of the garment, taking care to match all markings (I). Baste and stitch $\frac{1}{4}$ inch from the raw edge. Remove the bastings and press the plain seam open (II).

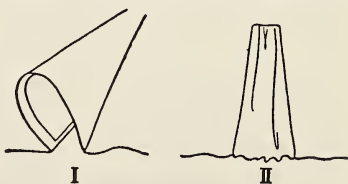


FIGURE 102

Gussets (Figure 103). — Gussets are double triangular pieces that are set in to prevent ripping where two seams meet. Cut a square of material the desired size and baste a $\frac{1}{8}$ -inch hem around

the square. Press and fold to form a triangle. Baste the open sides of the triangle, taking care to match the creased edges.

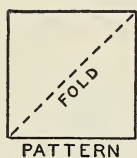


FIGURE 103

Place the point of the triangle opposite the fold under the seam of the gusset opening. Baste the sides of triangle under the gusset. Stitch close to the edge along the sides of the gusset opening. Remove bastings and press.

26. Bias. — There are two kinds of bias — true and garment. True bias is cut diagonally across the material, and garment bias is cut at any diagonal.

True Bias (Figure 104). — To mark a true bias, fold the material diagonally so that the warp thread lies parallel to the woof or filling thread (I). With a warm iron crease the folded line of bias and mark on the wrong side of material from the crease and parallel to it, the desired width of the bias strips (II). Cut on the marked lines and join the strips by placing them together so that the ends meet, forming right angles; baste $\frac{1}{4}$ inch from the edge (III). If the material has a design, care must be taken to have the designs match. Stitch the strips by hand or machine $\frac{1}{4}$ inch from the edge, remove the bastings, and, with a warm iron, press the seam open (IV).

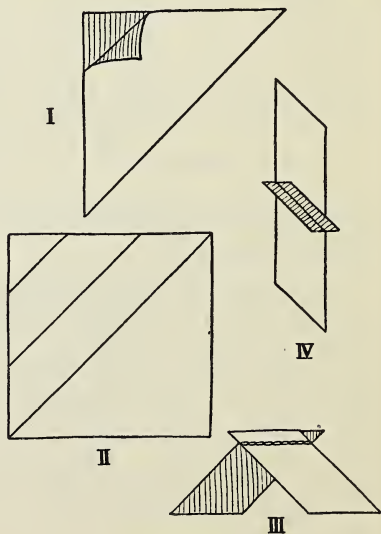


FIGURE 104

27. Bindings. *In General* (Figure 105). — Bindings are used for decoration and to finish raw edges. They should be cut twice

the finished width of the binding, plus two seam allowances. Double bindings are cut four times the width (B-I, II). Double the strip with the raw edges together and press with a warm iron (A-I). If a binding is to be applied to a curved edge, it should be shaped with the iron before it is attached and handled as little as possible.

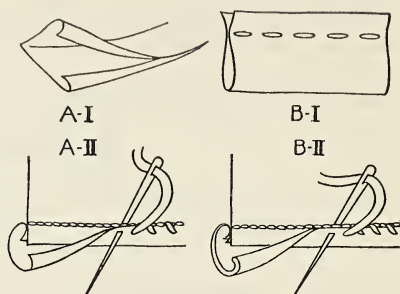


FIGURE 105

Inconspicuous Binding (Figure 106).—Place the right side of the bias or straight binding to the right side of the fabric so that the edges are even. Baste $\frac{1}{4}$ inch from the edge and stitch on the bastings. Remove the bastings and turn under the raw edges of the binding $\frac{1}{4}$ inch. Pin and baste the folded edge of the binding to the line of stitching. The binding is held in place by slant stitches that are caught under the thread of the stitching and through the edge of the binding.

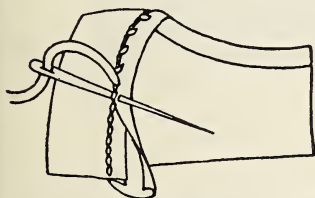


FIGURE 106

Conspicuous Binding (Figure 107).—The conspicuous binding is made the same as the inconspicuous binding except that the folded edge is brought just beyond the first stitching. Baste the edge in place and press with a warm iron. Stitch close to the binding on the right side, taking care to catch the edge of the binding on the wrong side.

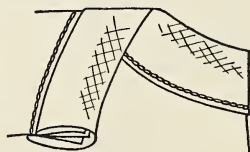


FIGURE 107

28. Pippings. *General Directions* (Figure 108).—Pippings of the same or contrasting material or color are used on the edges and in the seams of garments for

decoration. They appear as narrow folds on the right side of garment.

To finish the open end of the piping, turn the two right sides together, stitch $\frac{1}{4}$ inch from the raw edge, and clip the corner next to the fold in order to secure a square corner when turned. When joining two edges for piping, care must be taken that the length of the piping is the same

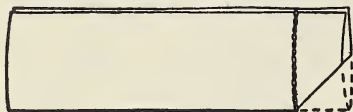


FIGURE 108

$\frac{1}{2}$ inch for seam allowance. To match the strips, follow the directions for true bias (Figure 104).

Inconspicuous Piping (Figure 109). — Cut a bias strip that is the desired width and length, plus seam allowance, and, with a warm iron, crease the center of the bias so that the raw edges are even. Place the bias on the right side of the article to be piped

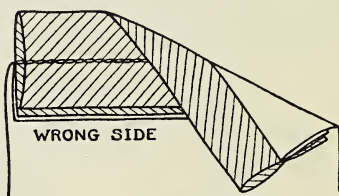


FIGURE 109

with the raw edges of the bias even with the edges of the article. Baste and stitch $\frac{1}{4}$ inch from the edge. Overcast the raw edges and, with a warm iron, press the edges to the wrong side of the article.

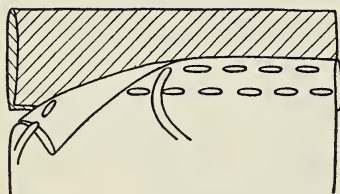


FIGURE 110

Conspicuous Piping (Figure 110). — Cut and crease the bias strip as for inconspicuous piping. Fold under the edge of the article to be piped $\frac{1}{4}$ inch and baste in

place. Press the edge with a warm iron and baste the bias strip under the folded edge, taking care to keep the bias always the same width from the folded edge. Stitch on the right side the

desired width of the seam and finish raw edges by overcasting. Press on right side.

29. Facings. — Facings are edge finishes which sometimes serve as decoration for articles. The facing may be cut either on the straight, bias, or curve. The three types of facing are: *straight*, *fitted*, and *shaped*.

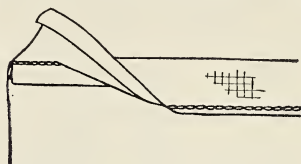


FIGURE 111

Straight Facing (Figure 111). —

Straight facings are used on straight edges and are best when cut to match the grain of the material. Cut the facing the desired width and length of the article to be faced and apply as for bias facing (Figure 104).

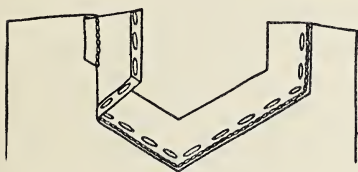


FIGURE 112

Fitted Facing (Figure 112). —

A fitted facing is used on edges that have sharp corners or curves. Using the edges of the article to be faced as a pattern,

cut the facing exactly to fit it and apply as for bias band (Figure 104). The facing may be of any width and may be used for decoration, in which case it appears on the right side instead of the wrong side of the garment.

Shaped Facing (Figure 113). —

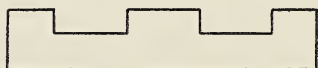
The shaped facing is used around necklines, the bottoms of sleeves, etc. The outer edge of the facing may be straight or have a design, and this facing when finished always appears on the right side of the garment. If there is no pattern for the designed facing, make as for



A



B



C

FIGURE 113

scalloped hem (Figure 127), taking care to keep the corner designs accurate. Measure the facing the exact length of the part to be faced plus seam allowance. The width of the facing will depend upon its use and the material, but the facing should be cut $\frac{1}{2}$ inch wider than the finished width. The facing is sewed together and the plain seam is pressed open. Place the right side of the facing to the wrong side of the garment, taking care that the corners and edges match. Pin and baste the facing to the garment. Stitch $\frac{1}{4}$ inch from the raw edge. If the outer edge is cut in a design, it is necessary to clip between the scallops $\frac{1}{8}$ inch from the seam. Remove bastings and turn the facing to the right side of the garment and baste the plain seam so it comes directly on the fold. Turn under a $\frac{1}{4}$ -inch hem around the outer edge of the facing and baste. Press with a warm iron. Pin the outer edge of the facing to the garment and baste around the design. Stitch as close to

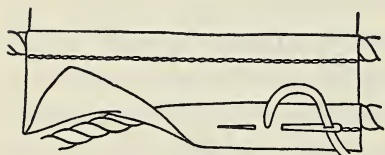


FIGURE 114

edge of design as possible. Remove bastings and press on wrong side of the garment.

30. Cordings. *Cord Tuck* (Figure 114). — Mark with a colored thread the desired line

for the cording. With the left hand, hold the cord underneath on the line of basting and inclose it in a tight backstitch tuck, taking care to sew the stitches as tightly and as closely as possible so that the cording stands up. Remove bastings and press on the wrong side with a warm iron.

Cord Piping (Figure 115). — Cut bias strips of fabric in which to insert cord and proceed the same as for cord tuck, using the running stitch instead of the backstitch.

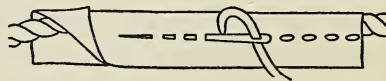


FIGURE 115

31. Mitering. *Miter for Firm Fabric* (Figure 116). — Cut a square of paper that is twice the desired width of the hem. Fold the paper diagonally and pin together. Carefully match the corner opposite the fold to the corner of the fabric and pin (I). Cut along the folded edge of the paper. Bring the two right sides of the cut material together and pin, baste, and sew together with the backstitch (II). Remove bastings and paper, clip the corner, press plain seam open and turn the hem right side out.

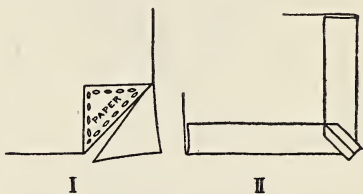


FIGURE 116

Turn a narrow fold to the wrong side and stitch in place, either by the hemming stitch or by machine stitching.

Miter for Bias Tape (Figure 117). — Mitering is a method of eliminating material at a corner or point. Fold together the two right sides of the bias, keeping the sides even (I). Baste on a piece of paper. Starting at the outside edge of the miter, weave in a pin diagonally along the line on which the corner is to be cut. Baste along the pin, remove pin, and stitch along the basted line. Cut off the triangular corner, remove the paper, and press the plain seam open.

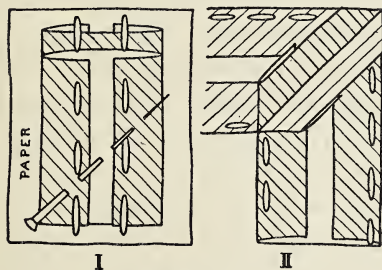


FIGURE 117

Finish Miter (Figure 118). — Clip the corner diagonally the width of the desired hem. Fold the hem allowance to the wrong side and press it in place. Match the right side of a triangular piece to the weave and right side of the diagonal cut, and baste before making the plain seam. Turn the triangular piece over and press it flat to the material. Turn under a narrow hem on

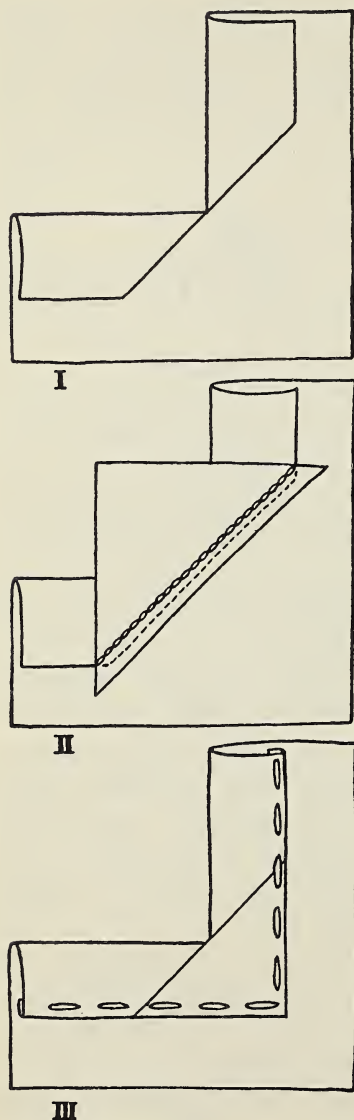


FIGURE 118

the outside edge, baste the hem in place and stitch on the folded edge. If an inconspicuous stitch is desired, use the warp stitch (Figure 20). Remove all bastings and press.

Mitering Straight Bands (Figure 119). — Place the right side of the band and the right side of the fabric together and baste them $\frac{1}{4}$ inch from the edge. Pin the inside edge of the band to the fabric to establish the beginning of the miter. Fold back the surplus corners and press with a warm iron to establish the mitering line. Remove the pins and baste along the creased line (I), taking care to match the design, if any. Cut away the excess material one-quarter inch from the basting. Stitch along the line of basting and press open the plain seam. Clip the corners of the seam before turning the band to the right side. With the band on the right side, baste the outer edge so that the plain seam comes directly on the fold. Press the edge of the band with a warm iron. Turn under a narrow hem on the inner edge of the band and

baste to the material (II). Press the basted hem and stitch directly on the fold.

Mitering Lace and Embroidery (Figure 120). — Designs in embroideries and laces should be matched as nearly as possible. A plain seam is the most satisfactory method of joining and may be finished with the button-hole stitch or a close overcast stitch (Figures 17, 12). A flat fell seam may also be used for joining (Figure 77). Establish the mitered corner of the lace by folding the corners at right angles, taking care that the design and edge of the finish match (I). Pin the folded corner and press with a warm iron along the fold. Remove the pins and baste along the creased lines. Baste the seam to be mitered on a piece of paper and stitch with the machine on the creased line (II). Remove the bastings and paper and press. Cut off the excess lace or embroidery close to the plain seam and finish with the buttonhole or the overcast stitch (III).

32. Hems. — Hems are made by twice folding over the edge of the fabric. The raw edge is concealed by the first fold, which is very narrow, and the second fold can be made any desired width.

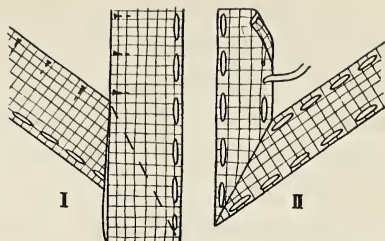


FIGURE 119

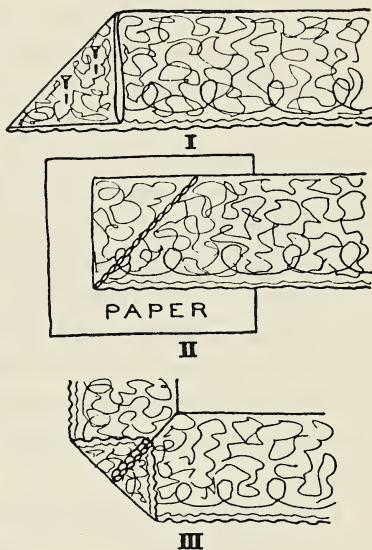


FIGURE 120

The belt should be placed on a garment before the hemline is established, as the belt has a tendency to shorten the skirt. Hemlines should always be of becoming length regardless of fashion. Sit down in the garment before determining the skirt length, for in sitting the skirt length is taken up, and this must be allowed for in establishing the hemline. The finished length will be determined by the style, height, weight, occasion, and figure of the individual.

All wide hems, regardless of the kind of fabric, should be made as inconspicuous as possible unless they are decorated hemlines as a part of the decoration of the garment, and for this reason should be put in by hand. In sewing in hems always work from right to left. The criticism of most blind hems is that the stitches which are used give a circle effect around the hem instead of the blind effect that carries the eye up and down with the warp thread. Accentuated hemlines make the figure look shorter, therefore use the warp stitch (Figure 20). Different methods are required for various garments and fabrics — soft bias edges should be sewed on paper to prevent them from stretching. Time-saving devices should be used for hemming articles such as towels, etc. Hems that are very small are put in with a hemmer without being basted.

Establishing Hemline (Figure 121). — Have the model stand erect “like a soldier” on a table, with the garment adjusted as it is to be worn. The model must be directly in front of the fitter, who is seated. The hemline and the eye of the fitter should be at the same level. With a gage or yardstick (with a rubber band placed securely at the desired hemline length), let the fitter weave in pins several inches apart around the hemline parallel with the table-top at the desired length (I). The model should not move during the establishing of the hemline. Remove the garment, press in the pinned hemline (II), then put up the hem by pinning seams together first, then the centers between seams

so that the hem of the garment may be checked as to evenness before making the hem. If the hemline hangs evenly when tried on, the garment is removed and the bottom placed over the ironing board and pressed along the woven-in pinline. A

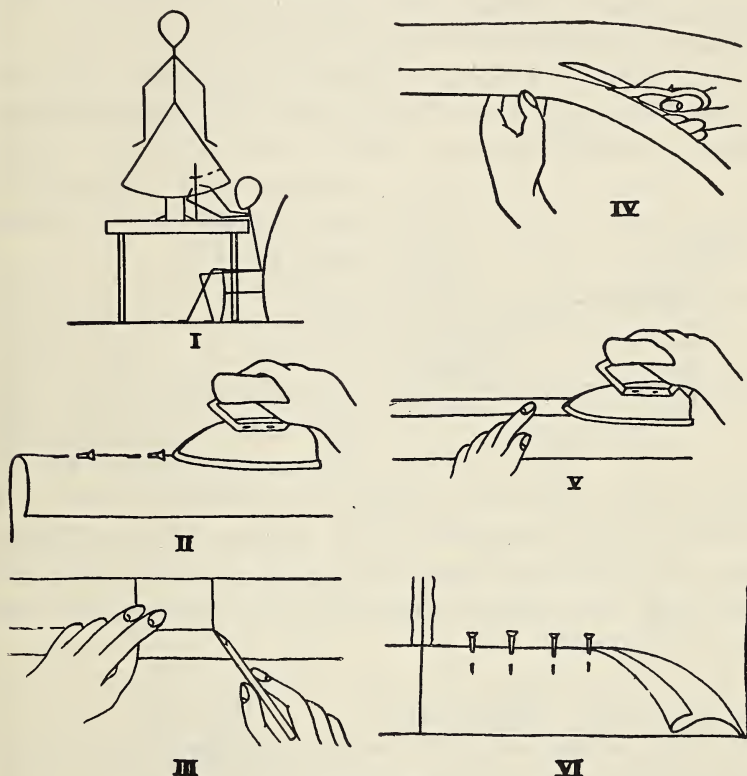


FIGURE 121

gage is used to mark the desired width of the hem, plus $\frac{1}{4}$ inch (III). The average width of a hem is three inches and hems over this width, unless used for decoration, give a weighted effect, while those narrower than this give a skimpy effect. The pins being removed around the skirt, the excess material on

the hem is cut off following the marking (IV). After the allowed $\frac{1}{4}$ inch is pressed to the wrong side of the garment (V), fold the hem back into place and press it in its entirety. Pin the hem by pinning seams together first, then the centers between seams. The hem is then ready to baste into place. Use the hemming stitch which is most desirable.

Hems should be pressed by placing the right side of the hem against the ironing board. Slip one end of the dampened pressing cloth under the hem and fold the other end back over the hem (page 210). Press according to the nature of the fabric (pages 216–217).

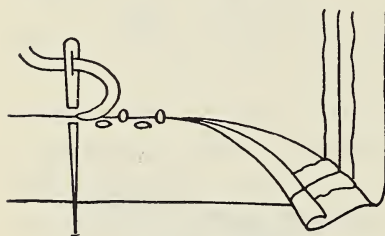


FIGURE 122

Method of Sewing in a Hem (Figure 122). — In putting in any kind of a hem, always begin at a seam, sewing from right to left, holding the work over the index finger of the left

hand so that the hem is exactly perpendicular to you, and working on the wrong side of the garment. Many different kinds of stitches are used for putting in hems, the most serviceable and excellent stitch being the inconspicuous warp stitch (Figure 20).

Plain Hem (Figure 123). — A plain hem is the folding back of the fabric on the wrong side the desired width of the hem when finished, plus seam allowances. This is the most common hem used in garments.

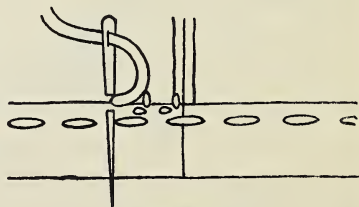


FIGURE 123

Bound Hem (Figure 124). — Cut the binding and place the right side of the binding to the right side of the hem. Pin and baste in place. Stitch $\frac{1}{4}$ inch from the raw edge before turning.

Press the plain seam toward the binding. Turn under a $\frac{1}{4}$ -inch seam and press. Baste the folded edge to the line of stitching (if hem is to be put in by hand) so as to catch the fold and the machine stitching. If it is to be put in by machine, baste the folded edge just over the machine stitching and stitch on right side in groove of plain seam.

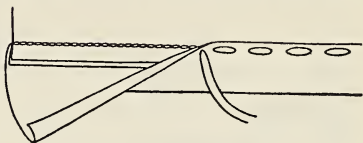


FIGURE 124

Faced Hem (Figure 125). — Faced hems are generally used when the skirt lengths are too short to make an ordinary hem.



FIGURE 125

Cut facing $3\frac{1}{4}$ inches wide and the length required to go around the hem, plus seam allowances. Sew in seams and press them open, and place the right side of facing to the right side of the skirt. Stitch $\frac{1}{4}$ inch from the raw edge. Press plain seam open. It may be necessary to

dampen the seam before pressing. Turn the facing to the wrong side of the garment and baste the seam so that the line of stitching comes directly on the fold. Finish as for plain hem.

Curved Hem (Figure 126). —

Curved hems are found on circular or gored skirts. Circular skirts should hang for some time before the hemline is established because the bias fabrics have a tendency to relax and drop. In establishing the hem the pins should be woven in closely. Tiny gathers are used (A-I). If

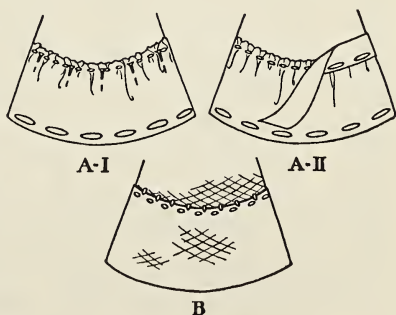


FIGURE 126

curved hems are used in very heavy fabrics, a faced hem should be applied (A-II). The curved hemline is used as a pattern for cutting this facing. Cut the desired width and length. Pin and baste the facing on the garment, and stitch $\frac{1}{4}$ inch from the raw edge. Turn the hem at the seamline to the wrong side of the garment. Baste and press. Finish as for plain hem (B).

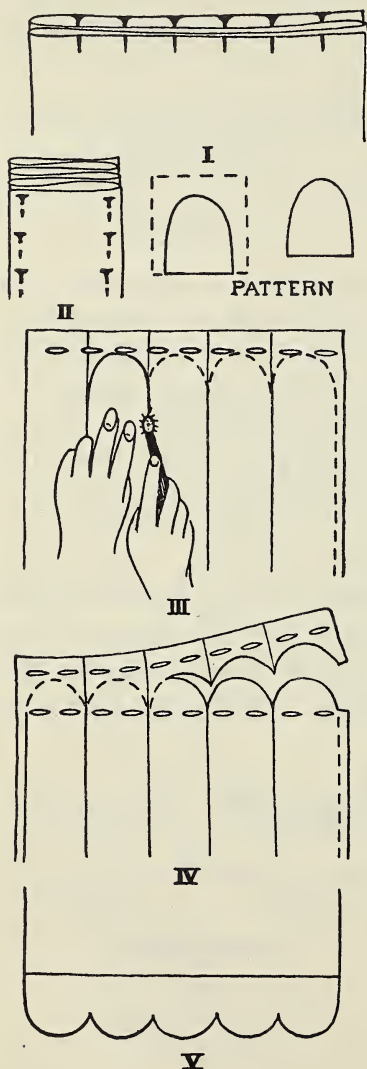


FIGURE 127

Scalloped, Pointed, or Squared Hems (Figure 127). — The bottom of the garment having no decorative pattern may be shaped in scallops, points, or squares. For this kind of a hem, a longer skirt length is required. A safe amount to add to the skirt length is the width of the design, as a cut-up design has a tendency to shorten the appearance of the skirt. Establish the hemline and, before removing the pins, run a close basting along the hemline. Locate a center front and back in the garment and pin evenly together. Run a basting along the pinline and remove the pins. Fold the center front and back together and crease on the

fold (I). Continue dividing, pinning, and pressing the garment until the desired width of the scallops, points, or squares is obtained (II). Remove the pins and unfold the garment. On stiff paper make a pattern the desired width of the design. Fold the paper equally in the center and mark on the fold the length of the scallop, point, or square. Draw the shape of the design and cut. Place the bottom of the garment over the ironing board or several thicknesses of paper. Pin the pattern to the hem so that the sides of the pattern are even with the creases. With a tracing foot trace around the pattern shape (III). Continue placing the pattern between the creased lines until the entire design has been traced. This will give faint dotted lines on each side of the hem. Remove the bastings and cut along the line of tracing (IV). A shaped hem requires a fitted facing and may be straight or bias, depending upon the fabric (V). The pattern for the design of the bottom of the garment is used to cut the paper pattern for the facing. Cut a strip of paper the desired width of the hem, plus $\frac{1}{2}$ inch for seams, and half the length of the distance around the hem plus seam allowance. The paper pattern is pinned carefully to the bottom of the skirt and cut to match the skirt design. Remove the paper pattern, then cut the facings, taking care to place the two right or two wrong sides together. Sew the seams and press them open. Place the right side of the hem facing to the right side of the skirt, matching seams and designs. Pin and baste the facing to the bottom of the garment. Stitch $\frac{1}{4}$ inch from the raw edge and clip between the designs to $\frac{1}{8}$ inch of the machine stitching, being careful not to cut the stitching. This will enable the curves to lie perfectly flat when turned. Remove bastings and turn the hem to the wrong side of the garment. Baste the plain seam so that the line of stitching comes exactly on the fold. Press carefully around the shaped design. Finish as for plain hem. Designs on all straight edges may be established, cut, and made in this manner.

French Hem (Figure 128). — This hem is made just like the plain hem except that it is turned to the right side instead of to the wrong side of the garment.

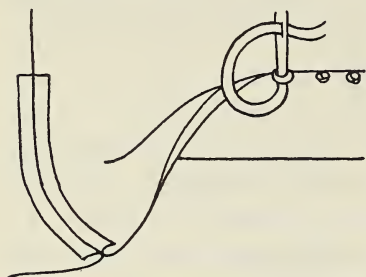


FIGURE 128

The seams, therefore, which come at the hemline will have to be made on the right side of the garment. When a wide French hem is desired, the hem is basted in and held in place by some decorative stitch. If lace is used, it is held on with a suitable decorative stitch and applied when sewing in the hem. This style of hem is commonly used for children's dresses.

Rolled Hem (Figure 129). — The rolled hem gives daintiness and should be rolled very tight and small. Make the knot stitch close to the edge under the rolled hem. Hold the edge of the fabric tightly between the thumb and forefinger of the left hand and roll edge toward you, working from right to left.

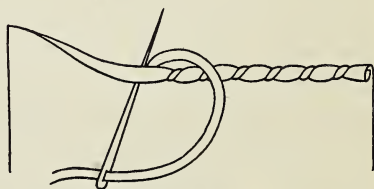


FIGURE 129

Roll $\frac{1}{2}$ inch at a time and make several stitches before rolling more. Hold hem in place by whipping, slant hemming, or overcasting.

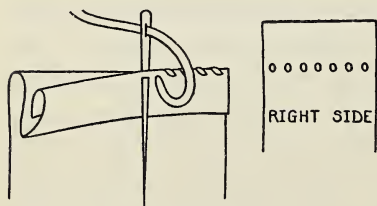


FIGURE 130

Damask or Napery Hem (Figure 130). — Turn a narrow hem twice to wrong side of material. Fold back to right side and crease. Overhand both folds. When hem is completed, press on right side and then on wrong side.

CHAPTER III

CONSTRUCTION PROBLEMS

*The fairy stitching gleams
On the sides and in the seams.*
— FREDERICK LOCKER



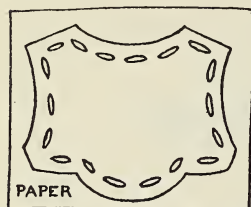
BEGINNERS in sewing may conquer the seam and the hem and the other essential processes, which were explained in the previous chapter, and still not be able to discover why a sleeve twists on the arm, or why the shoulder sets so queerly, or why a collar is all wrong. The finishing processes — sewing in sleeves, adding a yoke, putting on a pocket, making a collar —

will now have to be studied and practiced until they can be done easily and without waste of time or material.

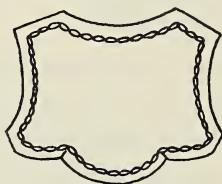
33. Yokes. — The yoke effect is used to break long vertical lines. It may be cut in one or two pieces, closed or open in front or back; it may be cut on the bias or the straight, of contrasting fabrics and colors for design effect; it may be attached to the waist plain or the lower part of the waist may be gathered. If there is a yoke on the waist and on the skirt, also, they should be designed so that the same lines are carried out in both yokes.

Single Yoke (Figure 131). — Cut the yoke and baste it on stiff paper to avoid stretching, and to assure turning of smooth, even corners (I). Stitch $\frac{1}{4}$ inch around all sides of the yoke. Clip the corners to within a few threads of the fold and fold under the edge that is to be attached to the garment to the desired width of the

finished seam. Press with a warm iron. Remove the paper and baste the folded edge. Baste a piece of paper under the top of the



I



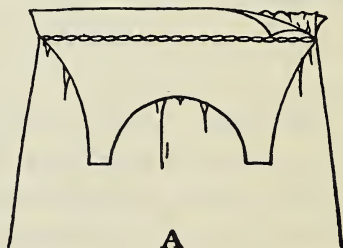
II

FIGURE 131

garment to which the yoke is to be attached. Baste the yoke to the garment with small bastings. Press the yoke carefully with a warm iron, on the right side, and stitch on the machine the desired width from the fold (II). Several rows of stitching give a more decorative effect. Remove paper and press with a warm iron. The raw edges then may be overcast (Figure 84), pinked (Figure 85), or a bias strip (Figure 86) may be applied.

Double Yoke (Figure 132). —

The double yoke is cut double instead of single and contrasting material may be used if desired. In applying the double yoke care must be taken to keep the seams flat and even. The seams are concealed between the two thicknesses of the yoke. Place the right side of the front of the yoke to the right side of the garment to which it is to be attached, and baste the two securely together. In like manner, place the right side of the back of the yoke to the wrong side of the garment so that the two yokes may be held in place by the same stitching.



A



B

FIGURE 132

Baste and stitch along the creased line (A). Remove bastings and press with a warm iron. Turn the yoke up and baste front and back together just above the seams on the right side (B). Attach the back and front yokes at the shoulder seam with plain seams concealing the seams within the yokes. The sleeves may be sewed at armseye to outer yoke and the under yoke folded under to the line of stitching and whipped down to conceal the plain seam. The top of the skirt yoke is seamed before it is attached to the skirt except when finished by a band. In this case, the lower part of the yoke is hand-hemmed in place, along the machine stitching.

34. Plackets. — A placket is an inconspicuous opening for convenience in putting on and removing the garment, and may be made in any part of the garment. The kind of placket used will depend upon the material, design, and use of the garment.

Placket openings are made to open from right to left for women, and from left to right for men. Plackets are best when made deep enough to permit freedom in the use of the garment. The three parts of the placket are the overlap, underlap, and fasteners. All plackets should be neat and as inconspicuous as possible.

Continuous Placket (Figure 133). — If the placket is to be made in a seam, measure on the seam line the desired length of the placket; otherwise cut the opening following a thread of the material. The continuous strip which is used to finish the placket opening should be cut twice the desired width of the placket, plus two seam allowances and twice the length of the placket opening, plus $\frac{1}{2}$ inch. Place the right side of the placket strip to the right side of the garment and baste $\frac{1}{4}$ inch from the raw

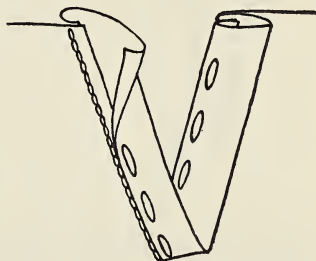
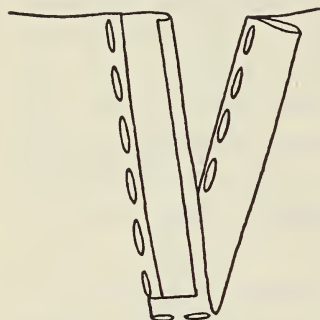
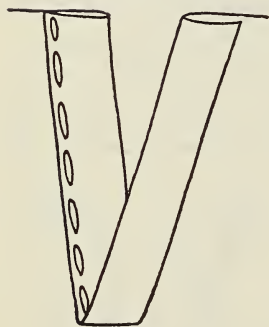


FIGURE 133

edge. Stitch with the machine as near the basting as possible. With a warm iron, press the plain seam toward the placket so that it will be concealed in the placket. Fold under a $\frac{1}{4}$ -inch hem on the outer edge of strip and press it in place. Baste the creased edge to the line of stitching and finish with the catch hemming stitch (Figure 18).



I



II

FIGURE 134

Cut-Out Continuous Placket (Figure 134). — When heavy fabric is used, it is advisable to use the cut-out placket in order to avoid too many thicknesses of material. Follow directions for the continuous placket, but, after basting the creased edge to the line of stitching, press and cut the fabric on the right-hand side on the back of the placket (I). Cut $\frac{1}{4}$ inch from the middle crease and $\frac{1}{2}$ inch from the bottom crease. Remove bastings holding the cut piece, and fasten the cut end of the placket to the garment. Turn the cut facing flat to the garment

and baste it in place. Sew the placket in place with close warp stitches (Figure 20). Remove bastings and press.

Two-Piece Placket (Figure 135). — Two-piece plackets are advisable to use when contrasts of color or fabric are desired. Cut the placket strips the desired length, plus 1 inch more in length than the placket openings. The binding that is to be used on the left side is cut twice the width of the placket, plus $\frac{1}{2}$ inch for the seams. The facing to be used on the right side is cut the

desired width of the placket, plus $\frac{1}{2}$ inch for seams. Apply the strips as for binding (Figure 86) and facing, and join the pieces together at the bottom with a buttonhole stitch (Figure 17). Fasten the binding with the hemming stitch, which is caught in the threads of the machine stitching. The facing is held in place with a close warp stitch.

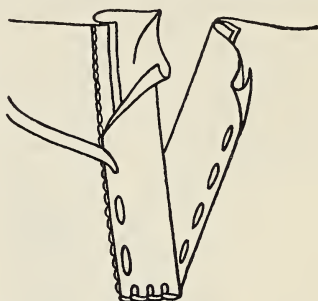


FIGURE 135

Tucked Placket (Figure 136). — This placket is used when an opening comes in a tuck seam, and it is put in when the garment is being made instead of after the seams are finished. Take a length-

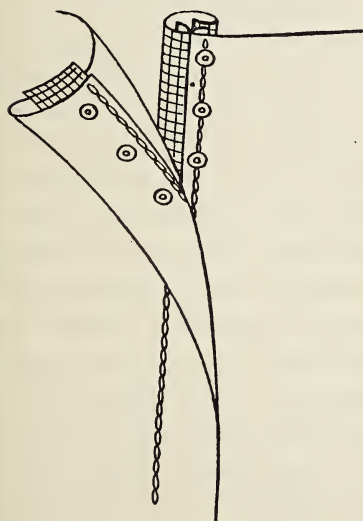


FIGURE 136

wise strip of fabric a little longer than the placket opening. This is slipped inside the tuck and basted as near the creased edge as possible so that it will be held in place when the tuck is stitched. This serves as a reinforcement for fasteners (Figures 187, 188). The underside of the placket may be finished with a straight strip. Place the right side of the strip that is $2\frac{1}{4}$ inches wide and 1 inch longer than the placket to the right side of the placket and stitch with a plain seam. Press open the plain seam on the wrong side

with a warm iron. Fold under the edge of the strip so that only $\frac{1}{2}$ inch extends beyond the seam line and 1 inch comes under-

neath. Turn under a $\frac{1}{2}$ -inch hem on the edge of the strip underneath and stitch this in place. The fasteners are buttonholed on the seamline, taking care that the buttonhole stitches do not show on the right side.

Lap Placket (Figure 137). — The two-piece inconspicuous placket is used in the plain seam. Establish the desired length of the placket by opening the plain seam. Cut two straight

strips 1 inch longer than the placket allowance. One strip is 1 inch wide and the other 2 inches. Place and baste the right side of the 2-inch strip to the right side of the under part of the placket. Stitch $\frac{1}{4}$ inch from the raw edge. Press the plain seam open and fold back the strip so that $\frac{1}{2}$ inch extends beyond the seamline and two inches come underneath it. Turn under a $\frac{1}{4}$ -inch hem on the edge of the strip underneath and stitch this in place with a close warp stitch. Place the two right sides together and baste the 1-inch strip to the right sides of the top placket and stitch $\frac{1}{4}$ inch from

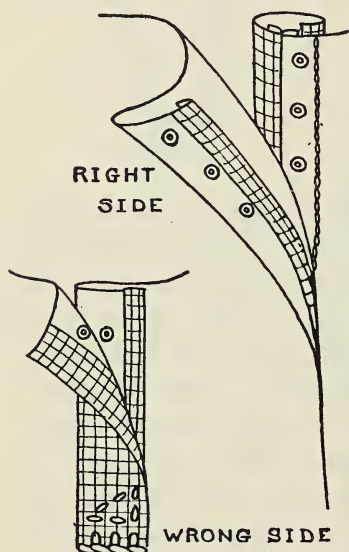


FIGURE 137

the edge. Press the plain seam open and fold underneath the strip so that $\frac{1}{2}$ inch extends beyond the plain seam. Sew the strip to the material with a close warp stitch (Figure 20). Baste the end of the placket strips together and finish with a buttonhole stitch.

Fly Placket (Figure 138). — The fly placket is used for the front opening of trousers and requires five pieces. Cut, following the pattern. The three lining pieces should be of some firm fabric

and the two outside pieces like the garment. In men's clothes, openings should always lap from left to right. The right side of the placket will be finished with two pieces, one of lining and one of the fabric. Baste the two right sides of the fabric together along the outer edge and stitch $\frac{1}{4}$ inch from the edge. Turn to the right side and baste close to the seamline. Press with a warm iron. Place and baste the right side of the extension to the right side of the placket and stitch $\frac{1}{4}$ inch from the seamline. Press the seam away from the extension and baste the inner lining along the seamline. Press the extension on the wrong side. Stitch from the top on the right side $\frac{1}{8}$ inch from the seamline. The left side of the placket is finished with one piece of fabric and two of lining. Place and baste on the outer edge one piece of the lining to the right side of the placket. Stitch $\frac{1}{4}$ inch from edge. Press the plain seam open and turn the lining to the wrong side of the placket. Crease and baste so that the fabric will extend $\frac{1}{4}$ inch on the lining side of the placket. Press with a warm iron. The fly strip is made by placing the right side of the lining to the right side of the fabric. Stitch $\frac{1}{4}$ inch from the outer edge, turn to the right side, and press on seamline. Baste around the fly strip. Mark and work

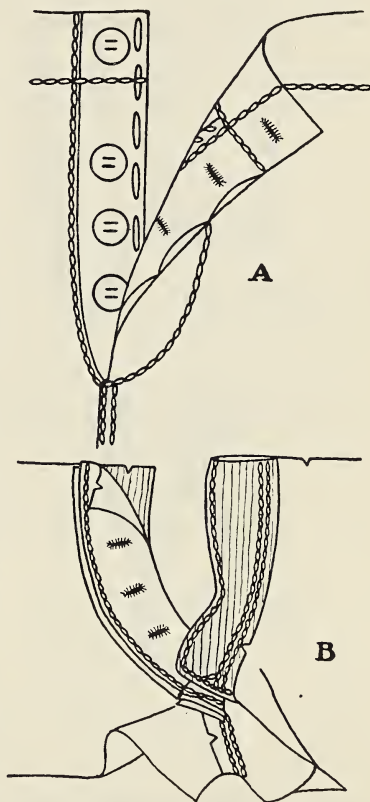


FIGURE 138

buttonholes. Pin and baste around the fly strip on the under side so that the outer edge will come even with the plain seam in the lining. Stitch on the wrong side $\frac{1}{4}$ inch from the raw edge of the fly strip. Finish with a close overcast stitch.

The fly strip should be securely blind-tacked to the placket between the buttonholes.

Tailored Placket (Figure 139). — The tailored placket is used for neck and shirt sleeve openings. Neck openings for men open from the left to the right, and for women, from the right to the left. Sleeve openings always lap from front to the back. Cut the opening the desired length and, if used on the sleeve, it must be kept in line with the little finger. Cut two strips of fabric, one $1\frac{1}{2}$ inches wide and the length of the opening plus $\frac{1}{4}$ inch for seam, the other 2 inches wide and $1\frac{1}{4}$ inches longer than the opening. The strips may be made narrower or wider, depending upon the desired width

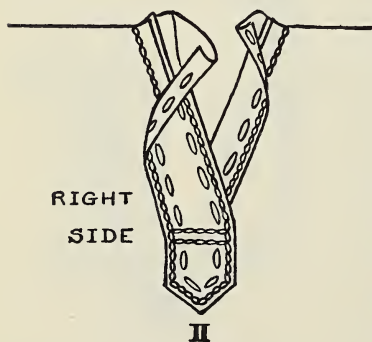
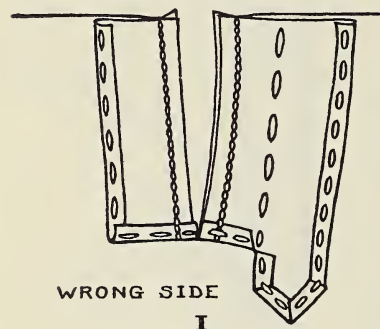


FIGURE 139

of the placket. The end of the placket may be finished square, pointed, or round. The $1\frac{1}{2}$ -inch strip is used for the under side of the placket.

Place the right side of this strip to the wrong side of the placket opening, taking care that the ends are even at the cuff or neckline (I). Baste and stitch $\frac{1}{4}$ inch from the edge of the opening.

Baste $\frac{1}{4}$ -inch hem along the side and top of the strip. The 2-inch strip is used for the upper side of the placket. Place the right side of this strip to the wrong side of the placket opening, taking care that the ends are even at the cuff or neckline. Baste and stitch the length of the placket opening $\frac{1}{4}$ inch from the edge. Baste a $\frac{1}{4}$ -inch hem along the side of the strip and press with a warm iron. Measure over on the wrong side $\frac{1}{2}$ inch from the creased edge and press along the $\frac{1}{2}$ -inch line, keeping the two wrong sides together. At the end of the placket opening, establish a line at right angles with the placket opening and mark $\frac{1}{4}$ inch above it. Shape the end of the placket by starting at the creased fold and cutting to the $\frac{1}{4}$ -inch line. Cut along the $\frac{1}{4}$ -inch line and clip the corner to the folded hem. Turn a $\frac{1}{2}$ -inch hem around the shaped end of the strip and baste. Turn the two strips to the right side of the garment. Baste the creased edge of the under side of the placket to the line of stitching and stitch along the basting (II). Press open the plain seam of the upper strip of the placket and baste the creased line directly on the line of stitching. Press with a warm iron. Stitch the shaped end and side opposite the fold accurately and securely to the garment with one or two rows of stitching as desired.

Neck Binding (Figure 140).—The neck opening may be finished by bands, bindings, or facings, depending upon the garment and collar. Binding is the most satisfactory finish used. After the neckline has been established, mark the opening the desired length by putting in a basting. Use a binding which is two inches wide and 1 inch longer than the length of the opening. Place the two wrong sides of the binding together and crease the center of the binding with a warm iron. Place the right side of the binding and the right side of the marked opening together, taking care that the binding is even with the neckline. Baste the center of the binding to the basted line of opening, taking care not to go beyond the basted line. Baste a

strip of paper under the neck opening on the side opposite the binding to insure a square corner when stitching (I-A). Stitch around the neck opening $\frac{1}{4}$ inch from the basted line. The bottom of the opening may be shaped in a V, U, or square (I-B). Press

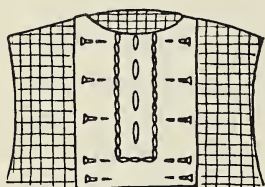
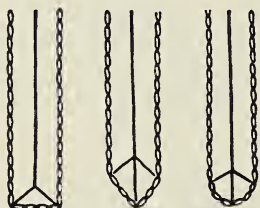
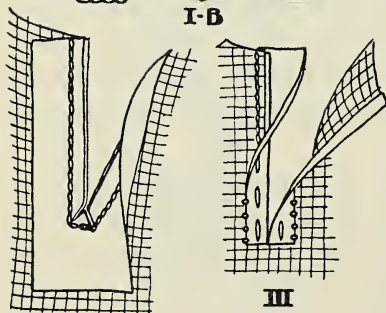
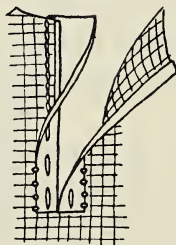
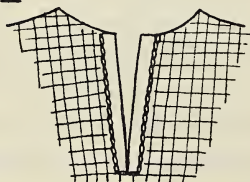
**I-A****I-B****II****III****IV**

FIGURE 140

the binding and cut on the line of basting, cutting the neck opening to within $\frac{1}{4}$ inch of the bottom of the facing. Then clip the corners in a V-shape, taking care to keep them alike and not to cut through the machine stitching (II). Turn the facing inward, and with a warm iron press along the line of the stitching. Baste a line on the facing $\frac{1}{4}$ inch on each side of the machine stitching (III). Carefully remove the paper and turn the facing to the wrong side, beginning at the bottom. Fold the two edges of the binding together and crease. Baste along the creased line, taking care to keep the edges together. Fold the sides of the binding outward and press with a warm iron. Turn under the binding so that the edges come even with the lines of machine stitching. Sew in place with the catch hemming stitch (Figure 18) or the close warp stitch (Figure 20). If

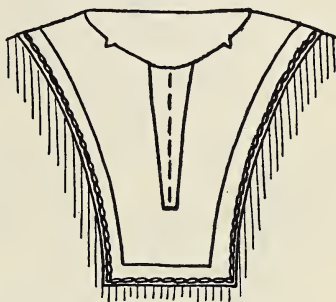
visible stitching is desired, machine stitching may be used (IV). Trim the end of the binding to within $\frac{1}{2}$ inch of the stitching and overcast. Press the entire binding and remove the bastings.

35. Neckline Finishes. — Necklines require skillful treatment. The natural neckline forms a good curve from the prominent bone at the base of the neck to just above the collar bone in front. The neckline is a little lower in the front than in back. The inside curves are usually faced to give greater strength and to prevent stretching. It is advisable to work out with stiff paper the most pleasing neckline and make the collar accordingly. The neckline without an opening should be two inches larger than the headsize.

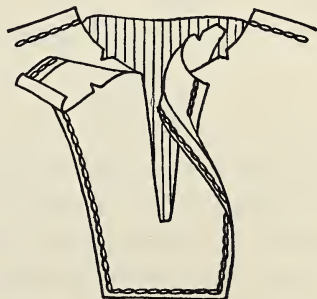
The six different styles of neckline are the U-, V-, and heart-shaped, round, tapering bateau (bâ-tō'), and square. Collars should be designed in keeping with the chin, neck, and shoulders (page 234). They should look as if they really belonged to the garment. Collars should be of a color and fabric that is becoming and in harmony with the garment. Firm, heavy fabric requires smaller collars than more sheer fabric. The shape of the neckline of the collar determines the lay or roll of the collar.

There are two styles of collars. They are the *convertible* and *non-convertible*. They may be made either double or single and the non-convertible may be made either attached or detached.

Convertible Collar Facing (Figure 141). — Cut the facing the desired shape and size and turn a $\frac{1}{4}$ -inch



I



II

FIGURE 141

hem to the wrong side around the facing except around the neckline. Stitch with the machine $\frac{1}{8}$ inch from the folded edge unless the facing is to be held in place with the warp stitch (Figure 20). Establish the

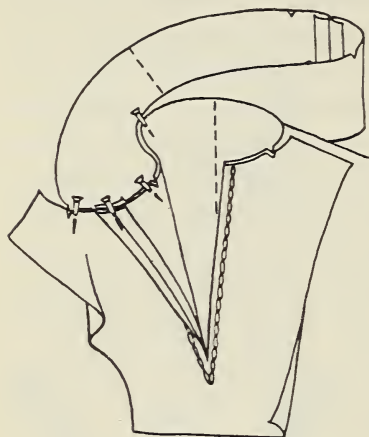
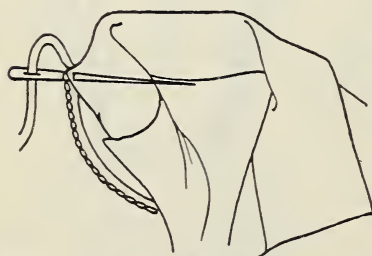
**I****II**

FIGURE 142

center of the facing and center front of the waist and crease the established line with a warm iron. Place the two right sides together, matching the creased center lines, taking care to keep them even at the neckline. Baste along the established line the desired length of the neck opening (I). If the fabric lacks body, a strip of paper may be basted along the back of the opening. Measure $\frac{1}{8}$ inch on both sides of the established line at the top of the opening and mark. Measure $\frac{1}{8}$ inch on both sides of the established line at the end of the opening and mark. With a ruler draw a line from point to point, shaping the lower end in a V, U, or square. Stitch along the marked line

and cut $\frac{1}{8}$ inch from the stitching, clipping around the curve to within a few threads of the machine stitching. This prevents the facing from puckering when it is turned to the wrong side. Press the plain seam open and turn. Turn the facing to the wrong side and baste so that the plain seam comes directly on the fold (II). The sides and end of the facing

are not sewed in place until the collar is entirely made and on the garment.

Attaching the Convertible Collar (Figure 142). — Establish the center back of the collar and neckline and place the underside of the collar to the right side of the garment. Pin the front of the collar to the neckline of the facing, taking care that the side seams of the collar exactly match the side seam of the facing (I). Pin the underside of the collar to the neckline of the garment and baste around the entire neckline. Stitch $\frac{1}{4}$ inch from the edge. Press the plain seam away from the neckline. Baste the two front seams of the collar together. Turn under a narrow hem from facing to facing, and baste down just to the machine stitching. Sew into place with the hemming stitch that catches the machine stitching, working with the fold towards you (II). The sides and bottom of the facing may be held in place by blind tacking at intervals or by finishing with the warp stitch (Figure 20).

Straight Band Collar (Figure 143). — This collar has a variation in the shape at the neckline, for it may be cut straight or slightly curved. Place the two right sides of the fabric together. The one-piece collar is cut with the top on the lengthwise fold (A) while the two-piece collar is not cut on the fold. Allow $\frac{1}{4}$ inch on

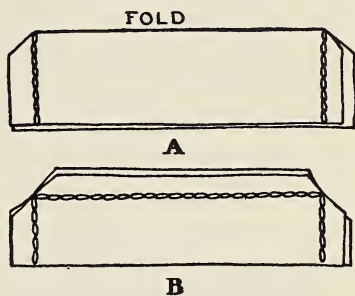


FIGURE 143

all edges to be seamed. Stitch the collar, taking care that the two right sides are together (B). Clip the corners and turn the collar to the right side. Baste and press the seam so that the fold comes exactly to the line of stitching. To attach this collar, follow directions for attaching the convertible collar.

Middy Collar (Figure 144). — Make facing (Figure 113). Place the two right sides of the fabric together and cut the collar

allowing a $\frac{1}{4}$ -inch seam. Stitch $\frac{1}{4}$ inch from the raw edge, leaving the neckline open. Clip the corners and turn the collar to the

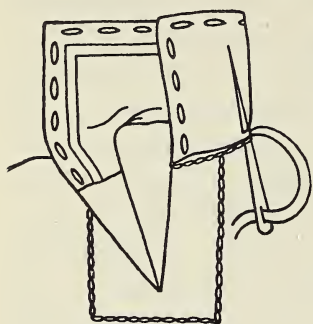


FIGURE 144

right side. Baste and press the seam so that the fold comes exactly to the line of stitching. Follow directions for attaching the convertible collar (Figure 142).

Tailored Collar (Figure 145). — Fold the material crosswise, pin the muslin pattern, and cut (except in cases where contrasting colors or materials are used for one side of the collar).

The muslin pattern is placed on the wrong side of the back of the collar and is used for an inner lining. Pin and baste the collar lining $\frac{1}{2}$ inch from the edge of the entire collar, then trim the inner lining $\frac{1}{4}$ inch from the edge of the collar (I). This is held in place with close rows of machine stitching stitched in a half-moon shape. The width of the moon, as a rule, is a little less than half the width of the center part of the collar. The length of the moon at the neckline should extend one inch to the front of the shoulder seam. Fill in the rest of the collar, beginning at the stand with rows of stitching like the diagonal basting stitches (Figure 9), which are invisible on the back of the collar (II). Make the stitches about $\frac{3}{4}$ inch long. The joining of the coat collar to the lapels of the coat is very conspicuous and must be done accurately and neatly. In stitching the ends of the collar, allow $\frac{1}{4}$ inch from the edge of the collar line. Hold the collar firmly over the hand with the tip of the collar toward you and, with diagonal basting stitches (I), roll and shape the collar.

Place the two right sides of the collar together and baste $\frac{1}{4}$ inch from the edge along the top and two ends of the collar and then stitch along the basting line. Clip the corners, dampen, and

press the plain seam open. Turn the collar to the right side, turning the plain seam to the back of the collar, and baste under enough so that the seam cannot be seen on the right side. Open the collar and, working on the wrong side, place the ends of the collar on the notches, matching the seams (III). Pin and baste securely in place. Place the center back of the collar to the center back of the coat and baste in place. Baste the back of the collar to the neckline of the coat.

Baste the front of the collar by working on the wrong side; then, beginning at the notch, baste the front of the collar to the neckline of the facing and stitch $\frac{1}{4}$ inch from the edge around the collar, following the bastings (IV). Dampen and press the plain seam open. The distance between the facings is basted securely to the coat so that the raw edge may be seamed. Press the entire collar on both sides with a damp cloth.

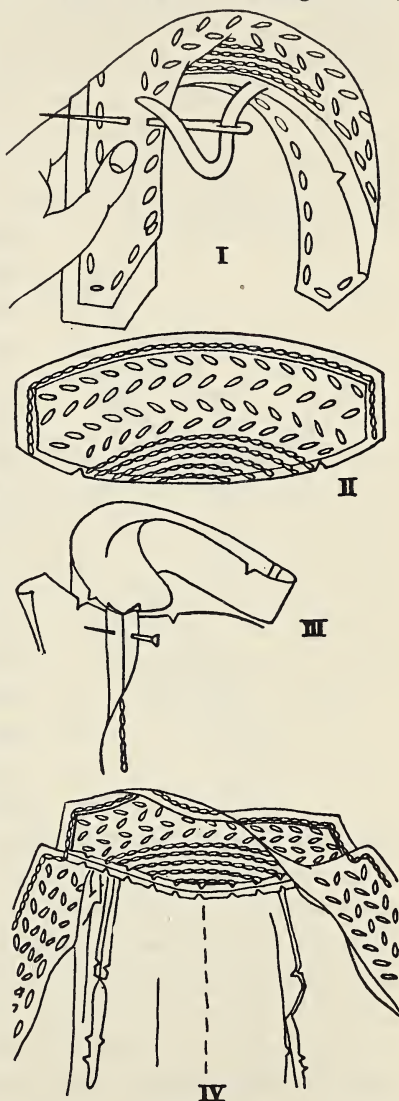


FIGURE 145

36. Non-Convertible Collar. *Attached Collar* (Figure 146). — Establish the center back of the collar and neckline. Place the underside of the collar to the right side of the garment and pin in place. Regardless of where the ends of the collar come on the front of the neckline, the ends should exactly meet. Baste around the entire neckline. The collar may be joined to the neckline by bias facing, flat fell seam, or a plain seam (A). The bias

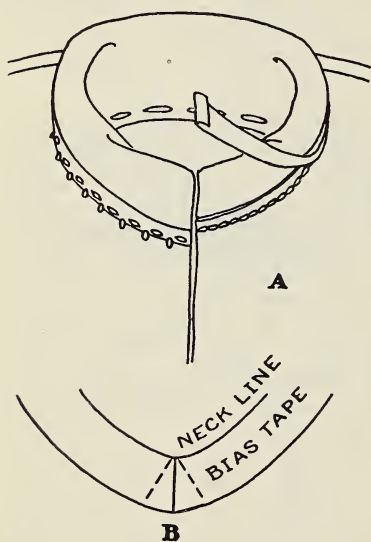


FIGURE 146

facing is the most suitable (Figure 104). Place the right side of the bias to the right side of the collar and begin to baste at the center front regardless of where the ends of the collar meet. At the end of the bias turn back $\frac{1}{2}$ inch and place the folded end of the bias exactly at the end of the collar. The reason that the $\frac{1}{2}$ inch is left at the end of the facing is so that the bottom of the facing may be let out in order to taper it outward from the neckline, instead of leaving the end a straight line (B). Pin and baste the

bias strip around the collar along the line of basting. At the other end of the collar fold back the facing $\frac{1}{2}$ inch, taking care that the folded end of the facing comes exactly at the end of the collar. Stitch the collar and bias to the garment $\frac{1}{4}$ inch from the edge. Remove the basting. Press the facing downward and turn the bias under $\frac{1}{4}$ inch, taking care to keep it of uniform width. Baste the bias to the neckline and stitch in place with the close warp stitch (Figure 20).

Detached Collar (Figure 147). — It is said that detached collars were invented in Troy, New York. The collar industry is believed to have been originated in that city by Hannah Lord Montague, who, in 1819, had the idea of making separate collars for her husband's shirts.

A detached collar is made separate from the neck opening. The neck opening is neatly-finished with a bias facing or binding. The bias binding is more desirable (Figure



FIGURE 147

105 A II). The collar is finished with a bias strip. Cut the collar facing 1 inch wide and $\frac{1}{2}$ inch longer than the length of the collar neckline. Fold the facing through the center and press. The ends of the facing are turned in $\frac{1}{4}$ inch at each end and the raw edge of the collar is slipped between the folded edges of the

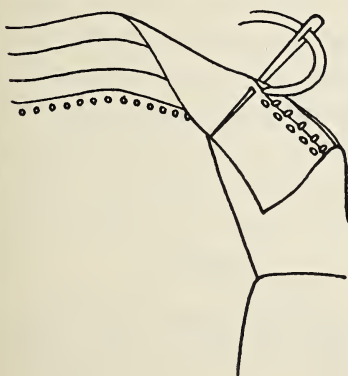


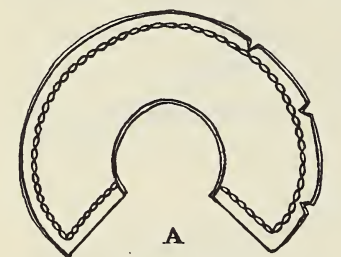
FIGURE 148

bias strip. Baste securely in place, taking care not to stretch the bias, then stitch. Remove the bastings and press. Sew to the collar line of the garment with the collar facing on the inside of the collar line. The detachable collars are especially desirable when the garment is to serve for more than one purpose. Such collars, moreover, are easily laundered.

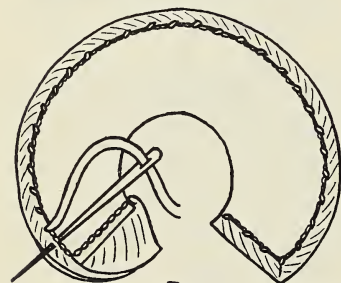
Stand-Up Collar (Figure 148). —

The narrow stand-up collar is made straight with the fold at the top of the collar. The tiered collar is made by using

different widths of fabric in the stand-up collar. The high stand-up collar is cut on a curve, following the contour of the neckline so that it will fit snugly at the neck. It is not



A



B

FIGURE 149

cut on the fold. Place the two right sides of the fabric together and cut, allowing a $\frac{1}{4}$ -inch margin on all sides to be seamed. Stitch $\frac{1}{4}$ inch from the raw edge, clip corners, and turn to the right side. Baste and press the seam so that the fold comes exactly to the line of stitching. Follow directions for attaching non-convertible collars (Figure 146).

Peter Pan Collar (Figure 149). —

This collar may be made either single or double, although the double is more desirable. For the double collar, place the two right sides of the fabric together and cut, allowing $\frac{1}{4}$ inch on all edges

to be seamed. Baste and stitch $\frac{1}{4}$ inch from the raw edge (A). Clip the seam in about five places and turn to the right side. Baste and press so that the plain seam comes exactly on the fold. If the single collar is used, the outer edge may be finished by picoting, binding, or hemming (B). Decorative stitches, lace, or trimming may be applied. Follow the method of attaching non-convertible collars (Figure 146).



FIGURE 150

Rolled Collar (Figure 150). — The rolled collar is made in exactly the same way as the Peter Pan collar except that the

rolled collar is cut with more of a curve at the neckline to insure the desired roll. Follow directions for attaching the non-convertible collar (Figure 146).

Shawl Collar (Figure 151). — The shawl collar has almost a straight line at the neckline, which makes it roll high and fit snugly at the back of the neck. Place the center back of the collar on the fold of the fabric. If the shawl collar is made double, place the two right sides of the fabric together. Cut and stitch around the outside of the collar $\frac{1}{4}$ inch from edge. If the fabric does not have body, the collar should be basted to a piece of stiff paper before being stitched. Remove bastings and paper, turn to the right side, and press so that the plain seam is exactly on the fold. To attach, follow the directions given for attaching the non-convertible collar (Figure 146).

37. Sleeves. — The home-made garment is branded by its sleeves. The foundation of a good sleeve is a well-established armseye and shoulder seam. The sleeve must be cut accurately, made well, and carefully adjusted to fit the arm. The types of sleeves must be suited to the wearer. The length of the sleeve is determined by bending the arm and touching the lobe of the ear. The fitted sleeve should fit closely from the elbow to the wrist to give style. Sleeves should be made in keeping with the Greek law of proportion. (See page 158.)

There are four types of sleeves and their variations: *set-in*, *kimono*, *raglan*, and *epaulet*.

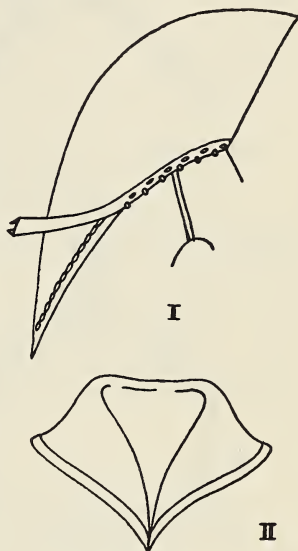


FIGURE 151

Shirt Sleeve (Figure 152). — The simplest style and the one that gives the least trouble is the shirt sleeve. This sleeve is sewed to the waist before the underarm seam is sewed up and

does not require such close fitting as the more snugly fitted set-in sleeve, but the looseness of this sleeve is desirable for some garments.

Set-in Sleeve (Figure 153). — This sleeve is the most commonly used and is cut in one or two pieces. It breaks the shoulder-line of a garment and allows the waist to follow more closely the lines of the figure. The set-in sleeve should fit smoothly in the armseye and, for comfort, should measure from one to four inches larger than the upper arm, depending upon the size. The top of the average sleeve measures one inch larger than the arms-

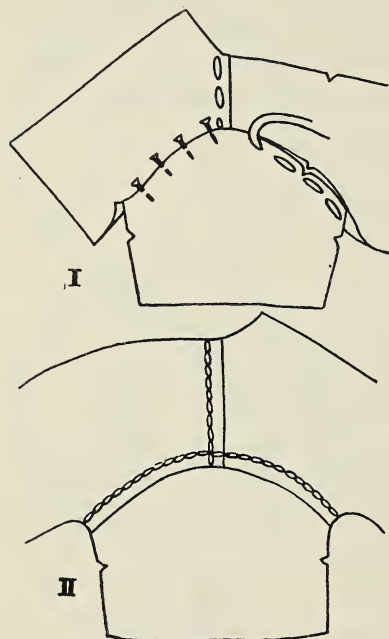


FIGURE 152

gives ease to the sleeve. The top half of the finished sleeve should have a soft roll toward the shoulder. This set-in sleeve is the most difficult of all to fit.

The set-in sleeve fits best when sewed in with the plain seam. Sleeves should be adjusted and pinned in place while the garment is on the model. The sleeve measurements should correspond to those of the arm. A correctly fitted sleeve will not bind when the arms are crossed and the fingertips touch the shoulders. There must be freedom at the elbow in all styles of sleeves.

When the arm hangs naturally at the side, the inside seam should be in line with the thumb and the sleeve opening in line with the little finger. Sleeves of thin and loosely woven material should be constructed larger not only to prevent pulling out but to give ease.

Three points will distinguish between the right and left sleeves of a garment :

(1) If the top curve around the armseye is the same when the seams are placed together, the sleeve may go into either armhole unless the bottom of the sleeve has a right and left finish. An example of this is the shirt sleeve in which sleeve and underarm seam are continuous (II-A).

(2) If the top curve around the armseye is uneven and one side extends slightly above the other, both having the same general shape, but one higher than the other, the highest part of the sleeve goes in the back (II-B).

(3) If the top curve around the armseye differs in shape, or one of the two sides extends higher than the other, the large part of the sleeve goes to the front. The seam of the sleeve generally comes $1\frac{1}{2}$ inches in front of the underarm seam (II-C).

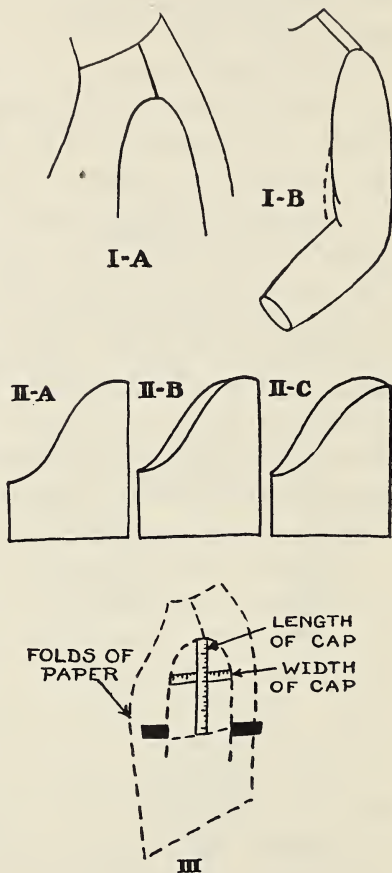


FIGURE 153

One reason for a set-in sleeve not fitting may be that the cap of the sleeve is not the right size for the arm. Before cutting out a sleeve, the cap on the sleeve pattern should be checked with the cap of the arm, to see if the pattern is of correct measurement (III).

To Take Measurements. — Care must be taken to get the correct width and depth of the armseye. It is therefore advisable, because of the importance of this measurement, to take the width and depth of the armseye and draw it full size before taking the circumference of it. To take this measurement, place the center of a fold of stiff paper so that the edge of the paper will come on the shoulder bone. Place the center of another piece of stiff paper under the arm far enough away from the pit of the arm so that the armseye, when finished, will not bind the arm. Keeping the ruler perpendicular, take the depth. The width of the armseye (which is the cap of the sleeve) is measured midway between the shoulder and underarm seam, and across the top or cap of the arm, allowing enough for arm movement. If fullness is desired, more allowance will have to be made.

Making the Sleeve (Figure 153 *continued*). — Mark the sleeve vertically and horizontally with a basting on the upper third of the sleeve along the warp and woof threads (IV). Make two rows of tiny gathering threads around the entire top of the sleeve. The first should come $\frac{1}{8}$ inch from the raw edge and the second $\frac{1}{16}$ inch below the first (IV). Place the two wrong sides of the sleeve together regardless of the kind of seam used to finish the sleeve. This is done for convenience in fitting the sleeve in the armhole. The seam can easily be tightened or made larger on the model. This part of the sleeve is somewhat bias and must be carefully handled. If extra fullness is needed at the elbow, gathers, folds, or several small darts should be made between the notches (V–VI). The extra fullness is allowed for when cutting the sleeve. If there is fullness at the elbow, baste the sleeve from

the bottom 1 inch from the raw edge to the notches indicated for gathers and baste from the top of the sleeve 1 inch from the raw edge to the notch indicated for gathers, and tack. Make two rows of tiny gathering threads between the notches (VII). The raw edges are pinned together at the top and bottom of the sleeve. Baste the even gathers, folds, or darts in place. Place the sleeve on the model to see if the sleeve is too large or too small for the arm and adjust the under-arm seam accordingly. Divide and mark the top of the sleeve and armseye (VIII, IX) into fourths, keeping the under-arm seam as one point. Very carefully draw up the gathering threads 2 inches at the top of the sleeve, at the seam. Twist the threads to prevent them from slipping, and even the gathers around the top half of the sleeve. Place the right side of the top of the sleeve over the tailor's pad and with a damp cloth shrink out the excess fullness (X). Wool will shrink more than

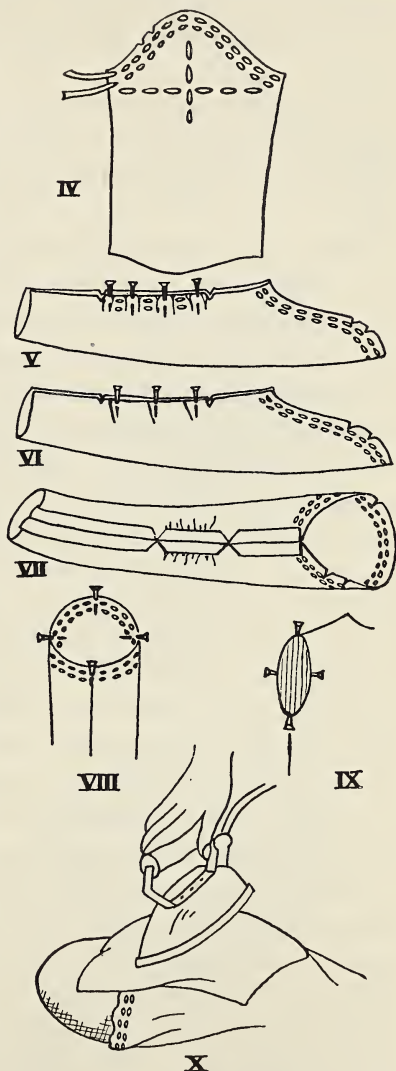


FIGURE 153 (continued)

any other fabric. Silks that have not been shrunk cannot be dampened as they will spot. Sleeves should never be stitched on the machine until they have been fitted and basted into the armseye.

If the sleeves do not then fit, they can be easily adjusted. The 1-inch sleeve allowance, if not needed when fitting the sleeve, can be cut off, the desired width depending upon the kind of seam made.

Setting in a Sleeve (Figure 154). — Place the garment and the sleeve right side out on the model (I). Fold under and pin the center of the sleeve to the armhole at the shoulder so that the vertical line in the sleeve hangs vertically with the arm (II). The reason the matching of notches in sleeves does not always give a perfectly fitted sleeve is because of the many variations in shoulders and upper arms. Fold under the raw edge at the two markings and pin the sleeve to the armseye, taking care that the horizontal lines run straight. If the vertical and horizontal lines are straight, subdivide the top of the sleeve; if there is a fullness that has not been shrunk out, turn the edges under and pin evenly around the top of the sleeve.

Place pins at right angles to the armseye edge, pointing toward the sleeve. Be careful not to stretch the top of the sleeve. The fullness that is not shrunk out should be eased in so that it does not show. This fullness prevents any strain at the top of the sleeve. There should be no fullness on the lower half of the sleeve unless extra room is needed for fleshy arms.

Remove garment from the model and, with the wrong side of the garment held toward you, carefully remove pins one at a time and pin to the wrong side of the sleeve. Match the lower gathering thread of the sleeve to the established armseye line. With the thumb and first finger, even the fullness and baste with small bastings (III). The gathered edge at the top of the sleeve does not indicate gathers on the right side of the sleeve. Again

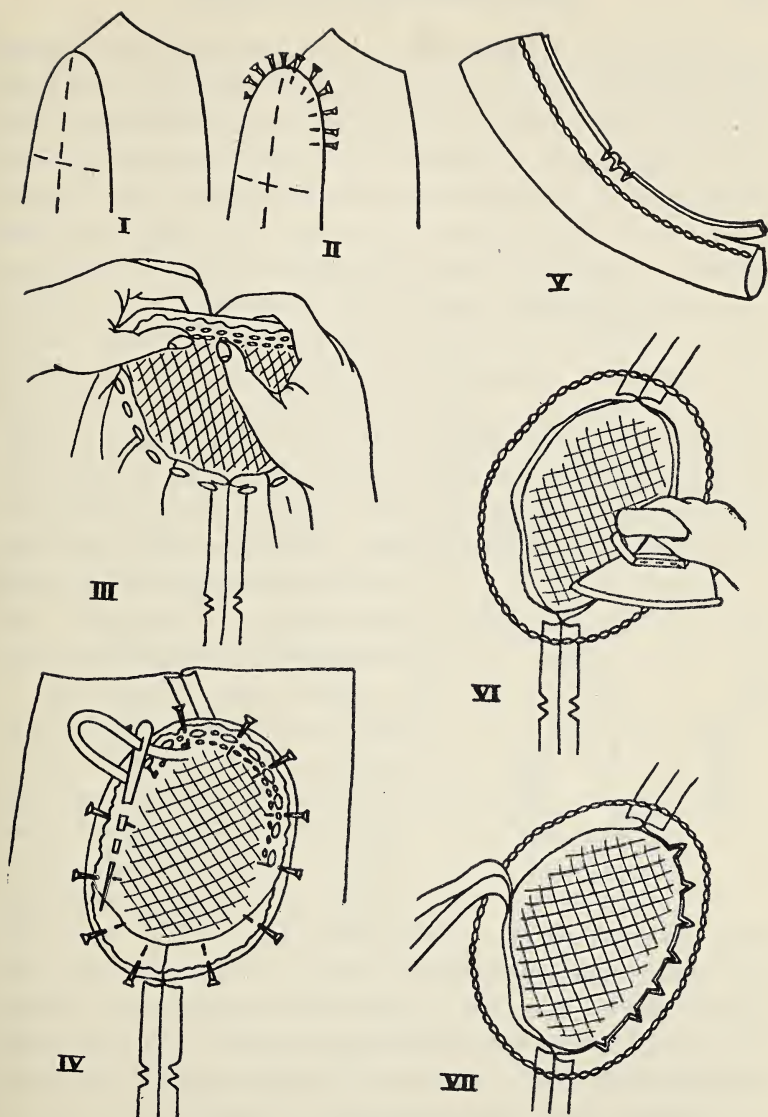


FIGURE 154

try the sleeve on the model to be sure that the sleeve fits. If the sleeve still does not fit properly, remove the garment and baste the lower half of the sleeve around the established armseye line. Again fit the sleeve. If the sleeve fits and hangs perfectly, remove the garment and trim off excess material on sleeve seam, depending upon the kind of seam to be made. The plain seam and pinking are advisable because they allow the fabric to give and are quickly and easily made. Make the desired seam. Stitch in the sleeve around the armhole, keeping the sleeve next to the presser foot. Remove bastings, place the right side of the sleeve over the tailor's pad, and with a damp pressing cloth press the armseye seam toward the sleeve (VI). Trim off the edge of the seam, depending upon finish desired (V). Clip $\frac{1}{8}$ inch from the seam around the sleeve at the armseye to prevent the sleeve from drawing or puckering (VII). Finish the seam around the

armhole according to the material and garment. Overcasting and bias binding are most often used.



2 TYPES

FIGURE 155

Kimono Sleeve (Figure 155). — The kimono sleeve may be made with one or two seams. One is on top of the shoulder, extending from the neckline to the bottom of the sleeve, and the other is underneath the arm, extending

from the waist to the bottom of the sleeve. The sleeve with one seam is more common but does not fit so well as the two-seamed sleeve. This style of sleeve fits smoothly over the top of the shoulder and falls in folds from the front and back of the shoulder to the waist. This sleeve should be made in a garment of soft fabric which has enough body to hang well.

Making the Kimono Sleeve (Figure 156). — The kimono sleeve is cut with the body of the garment in one or two pieces. The

sleeve may be finished with a plain or French seam, depending upon the material and garment. The sleeve seams are sewed with the underarm and shoulder seams. Plain seams that have been pinked are advisable to use because they do not restrict the give of the fabric.

Raglan Sleeve. — The raglan sleeve is similar to the kimono sleeve in that it has two seams. One seam is in the front and the other in the back of the established shoulder line. This sleeve is easy to make but has a tendency to make one appear round shouldered.



FIGURE 156

Making the Raglan Sleeve (Figure 157). — The raglan sleeve is cut separately from the waist. The seam of the sleeve and underarm seam of the waist are continuous and the sleeves are set in before the underarm seams are stitched. Match the notches of the sleeve and waist and pin and baste in place. Stitch the seam $\frac{1}{2}$ inch from the raw edge.

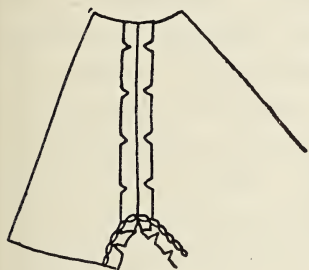


FIGURE 157

The plain seam is advisable to use because it does not cause the sleeve to draw. Clip the seam at regular intervals to within $\frac{1}{8}$ inch of the machine stitching. This will prevent drawing and insure a smooth-fitting sleeve. Press the plain seam

open with a warm iron. Place the two right sides of the sleeve together, matching the underarm seams and notches in the sleeve and waist. Baste and stitch $\frac{1}{2}$ inch from the edge. Clip the seam at the armpit to within $\frac{1}{8}$ inch of the stitching, to prevent drawing. Finish the raw edges of the seams according to material and use of garment. Pinking is the quickest method and allows the edge to give.

Epaulet Sleeve. — The epaulet (ěp'ô-lět) sleeve is similar to the raglan sleeve except that at the top it gives the effect of a yoke because it has a shoulder extension which resembles a yoke. The epaulet sleeve may be set in with the plain tuck or cord, although the plain seam is most often used. The sleeve is usually set in before it is seamed but it may be seamed and set in if desired.

Making the Epaulet Sleeve (Figure 158). — Holding the garment toward you, match the notches and pin the epaulet to the garment. Then, working with the sleeve held toward you, pin and baste the armseye seam. Stitch $\frac{1}{2}$ inch from the edge,

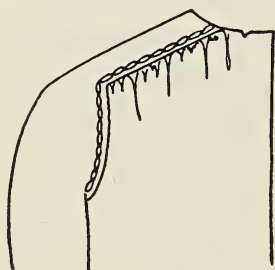


FIGURE 158

remove the bastings, and press open if the plain seam is used. Clip the plain seam almost to the machine stitching around curves to keep the seams from drawing. Deeper and more curved seams will remedy any puff in the garment and sleeve. Bagging of the sleeves is easily adjusted by making deeper underarm and sleeve seams. To finish seaming the sleeve, place the two

right sides of the sleeve together, matching the underarm seams, bottom of sleeves, and waist. Pin and baste. Stitch $\frac{1}{2}$ inch from the edge and press the seam open with a warm iron. Clip the seams at the armpit almost to the machine stitching to prevent the seam from drawing. Finish the raw edges of the seams according to the material and use of the garment. Pinking is the most advisable because it does not bind the edges.

38. Finishes for the Bottoms of Sleeves. — A well-fitted sleeve is made more attractive by the finishing touches which are used. The bottoms of sleeves are usually finished in some decorative manner which may be either cuffs, bands, bindings, or similar trimmings. Cuffs are usually more desirable and should match the collar in design. They may be made single or double,

attached or detached, and straight or shaped. Cuffs may also be made open or closed, depending upon the style of sleeve. If the cuff opens, the opening should be in line with the little finger and lap toward the back.

Cuffs add much to the daintiness of a frock. The bottom of the sleeve should be finished after the sleeve has been set in and stitched. The line for the bottom of the sleeve may then be correctly established. If the sleeve is too short, a designed attached piece may be added or a wider cuff made to give extra length. If the sleeve is plain at the wrist and is to be gathered into a band, measure the band the same as the wrist measurement plus $\frac{1}{2}$ inch fore seams and $\frac{1}{2}$ inch for the lap. The full sleeve is gathered with several rows of tiny running stitches before it is attached to the cuff.

Long tight-fitting sleeves and close-fitting cuffs require a cuff opening for convenience in putting on and removing the garment. Cuff openings should be inconspicuous and as small as possible. The correct location for these sleeve openings is in line with the little finger. The sleeve seam may be left open for a small distance at the cuff of the sleeve, thus making the cuff opening, but it is seldom as neat as the placket opening that is made in line with the little finger. The sleeve opening may be finished with a rolled hem, picoting, bias, facing, binding, or a narrow placket. The cuff opening is always finished before the bottom of the sleeve is made.

Cuffless Sleeves. — The cuffless sleeve may be either fitted or loose and the bottom of the sleeve may be finished with bias, lace, or any hem that will serve appropriately as an edge finish.

Single Cuffs (Figure 159). — Cuffs should always be made before they are attached to the sleeve. They may be cut lengthwise, crosswise, or bias, but the cuff that is cut lengthwise will fit tighter than the others. Cuffs have a variation in shape at the cuff line of the sleeve. The line may be straight or curved,

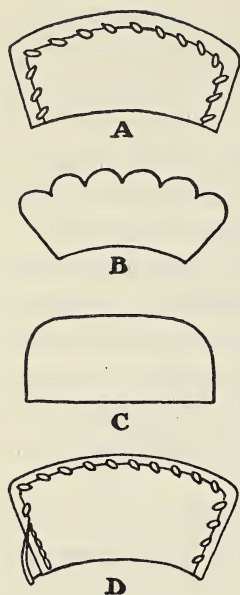


FIGURE 159

depending upon the amount of flare desired. The top and ends of cuffs may be cut any desired shape, but the design must correspond to that of the collar. The ends of the cuffs may be made open or closed. Cuffs, as a general rule, turn back from the wrist, but they may turn down. Flare cuffs or ruffles that turn down should not extend below the center of the hand from the wrist to fingers.

Single cuffs are cut the desired length and width plus $\frac{1}{4}$ inch for seam allowance and are cut from one thickness of fabric. The top and sides of the cuff may be finished with a rolled or narrow plain hem, lace, bias, or any appropriate edge finish. To attach single cuffs follow directions for Figure 162.

Double Cuffs (Figure 160). — These are cut the desired length and width, plus $\frac{1}{4}$ inch for seam allowance, from two thicknesses of fabric. In double cuffs there may be a contrast of material as well as color. Place the two right sides of the fabric together and cut the cuff. Straight band cuffs may be cut with the top on the lengthwise fold. Place the two right sides of the cuff together, and pin and baste $\frac{1}{4}$ inch from the edge. Stitch on the line of basting. Clip the corners, remove the bastings, and

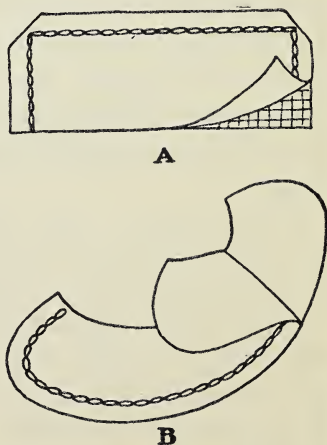


FIGURE 160

turn the cuff to the right side (A). Baste and press the seam so that the line of stitching comes exactly on the fold. To attach double cuffs follow directions for attaching cuffs (Figure 162).

Tailored Cuffs (Figure 161). — The tailored cuff is used on coats and suits and it is therefore necessary that it have an inner lining of muslin to give it body. Measure the distance around the bottom of the sleeve, plus $\frac{1}{2}$ inch for seam allowance. Fold two thicknesses of muslin together (I) and with a ruler or tape establish the distance for the length around the cuff and the desired width. Shape the top of the cuff to correspond to the collar in design and cut the muslin. Fold the fabric with corresponding sides together and place the muslin pattern that has been adjusted to the sleeve upon the fabric. Cut the backs of the cuffs like the muslin pattern, but cut the tops two inches longer at the bottom. Place the muslin lining on the wrong side of the back cuff (II). Pin and tack with the diagonal basting stitch, which is invisible on the back of the cuff. Trim the muslin lining $\frac{1}{4}$ inch from the raw edge. Place the two right sides of the cuff together, pin and baste $\frac{1}{4}$ inch from the edge along the top of the cuff. Stitch along the basting line, dampen, and press the plain seam open. Turn the two right sides of the cuff together and pin the ends together so that the seams match. Stitch $\frac{1}{4}$ inch from the edge, dampen, and press the plain seam open. Turn the two wrong sides of the cuff together and baste the plain seam which has been folded $\frac{1}{4}$ inch to the wrong side around the top

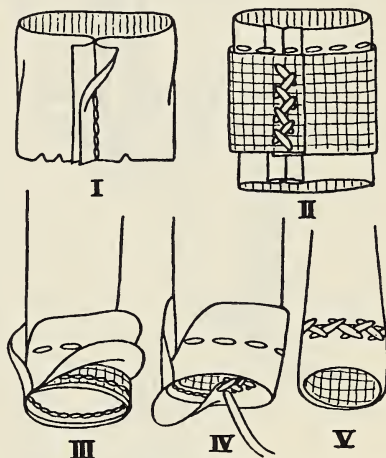
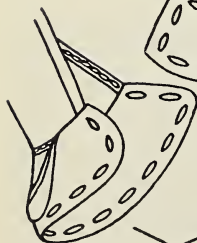
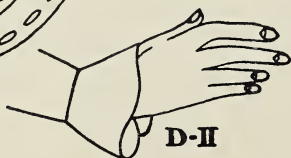


FIGURE 161

of the cuff so that the plain seam does not show on the right side. Now press the entire cuff with a dampened cloth.

**A****B-I****B-II****C****D-I****D-II**

over the hand with the top toward you, and then run a basting midway around the cuff. Cuffs that are shaped at the end should be placed on the sleeve so that the ends are in line with the little finger.

In joining the cuff to the garment, be very careful that the outside portion of the cuff does not draw when the cuff is rolled into position. Band cuffs are placed so that the seam matches that of the sleeve. Place the back of the cuff to the right side of the sleeve, leaving the top of the cuff free. Pin in place, baste, and stitch $\frac{1}{4}$ inch from the edge (III). Baste the loose part of the cuff along the line of stitching. Turn the edge of the outside piece of the cuff to the inside of the sleeve. The edge of the cuff should extend up into the sleeve from $1\frac{1}{2}$ to 2 inches so that the lining that extends over the raw edge will not show (IV). Fold up until it touches the raw edges of the bottom of the sleeve. Baste

FIGURE 162

the edge in place and stitch to the sleeve with the catch stitch (V) (Figure 30).

Attached Cuffs (Figure 162). — Attached cuffs may be made to turn up or down (C, D). The extension cuff may be attached by a French or flat fell seam, bias binding, or facing. Bias facing is the most desirable. If bias facing is used, place the right side of the cuff to the right side of the sleeve, matching the seams. When the ends of the cuff are open, place the ends of the cuff in line with the little finger. Pin the cuff to the cuff line and baste in place. If the bottom of the sleeve is to be gathered, it should be done before the cuff is put on. Cut the bias strip (Figure 104) for the sleeve and place the right side of the bias to the right side of the cuff. Turn back one end of the bias $\frac{1}{4}$ inch and place the folded end exactly at the end of the cuff (B-I). Pin the bias around the cuff along the line of basting. Lap the opposite end of the bias $\frac{1}{4}$ inch, taking care that the end of the bias comes exactly at the end of the cuff. Stitch the cuff and bias to the sleeve $\frac{1}{4}$ inch from the edge. Baste the bias in place along the seamline around the bottom of the sleeve so that the plain seam comes directly on the fold. Turn the raw edge of the bias under $\frac{1}{4}$ inch, taking care to keep the bias facing of uniform width (B-II). Baste the bias to the sleeve and stitch in place with a close warp stitch (Figure 20).

Detached Cuffs (Figure 163). — The detached cuff is made separate from the sleeve and is made to turn away from the bottom of the sleeve. The bottom of the sleeve is finished with a hem, bias binding, or facing, bias binding being the most desirable. The bias binding for the cuff is cut $1\frac{1}{4}$ inches wide and $\frac{1}{2}$ inch longer than the length of the cuff line. Fold the binding through

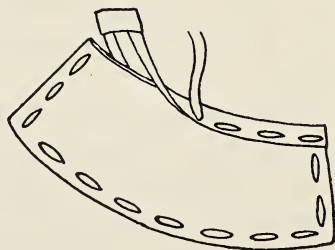


FIGURE 163

the center and press. Turn in both edges and both ends $\frac{1}{2}$ inch and press. Slip the cuff line of the cuff between the folded edges of the binding and baste. Stitch in place with the machine, remove the bastings, and press. Sew the cuff to the sleeve with the cuff binding on the inside of the cuff line.

The detachable cuff is especially desirable when the garment is to serve for more than one purpose.

39. Pockets. — Pockets are of two types — patch and set-in. Patch pockets are shaped pieces of fabric stitched on the outside of a garment while a set-in pocket is one which is set into slits or cuts in the garment. Pockets are used for both service and decoration. Pockets are best placed on a slant so that the hand may slide in with ease. The sham pocket is, of course, used only for decoration.

The style, shape, and size of the pocket in relation to the garment depends largely upon two things: first, the kind of material of which the pocket is made, and second, the location of the pocket on the garment.

Pockets at the hip line make the hips look smaller if placed close together, and larger if placed far apart. The skirt length and style of garment will dictate the kind of pocket needed, and the size and placement should be in keeping with the figure.

Set-in pockets may take a straight or a diagonal position in the garment. Although the shape may be modified the principle of making is always the same. The width of the pocket slit will depend upon its position on the garment and its use. Seams on set-in pockets must be neatly finished as they will reveal clumsiness or daintiness in accordance with their seam finish. Paper should be basted on the wrong side of fabric where patch pockets are to be placed, and cambric for set-in pockets. The paper aids in stitching and the cambric aids in making parallel lines in the pocket pattern and also gives shape to the pocket opening.

Patch (Figure 164). — The size of a patch pocket is governed by its location on the garment. The pocket may be square or any desired shape and may be cut on the bias if a unique shape is desired.

There are various ways of finishing the pocket. Patch pockets are generally plain-stitched on the garment, but if a more decorative finish is desired, cording, piping, or binding may be used. Lining the patch pocket with a contrasting color or material affords an unusual touch.

Establish and mark the placement of the pocket on the garment. Determine and cut the pocket pattern the desired shape and size. Cut a piece of paper that is two inches larger than the pocket pattern and baste to the wrong side of the garment around the established line of the pocket, taking care to keep the fabric smooth (I).

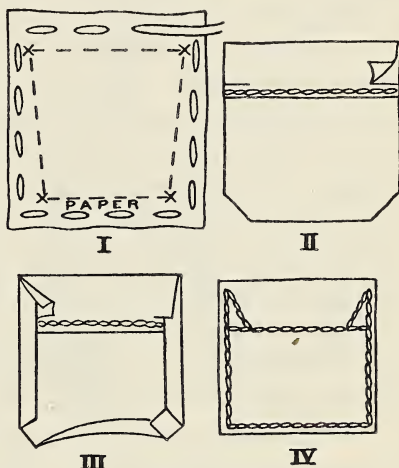


FIGURE 164

Cut the pocket according to the pattern, allowing $\frac{1}{4}$ inch for seams and the desired amount for the hem at the top. Finish the top of the pocket with a hem before it is stitched to the garment (II). After the hem has been stitched in place, make a slash of about $\frac{1}{4}$ inch on the wrong side of the pocket hem at both ends, parallel to the stitching and just above it. Turn under and baste the raw edge to the wrong side on the sides of the pocket and fold in the cut portions of the hem (III). This keeps the corners of the hem from slipping out and showing. The underside of the hem should be turned under slightly deeper at the cut edge than on the outside. Baste the pocket in place on the

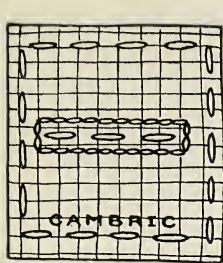
garment and, with the top of the pocket toward the worker, begin stitching at the hem line $\frac{1}{4}$ inch from the side of the pocket. Stitch $\frac{1}{4}$ inch and on an oblique line to the corner. Turn and stitch $\frac{1}{16}$ inch from the edge around the sides of the pocket and finish the corner on the opposite side in the same way (IV). Remove paper and press carefully.

Set-In Pocket (Figure 165). — Determine the location and width of the pocket, mark the line of the pocket opening, and baste.

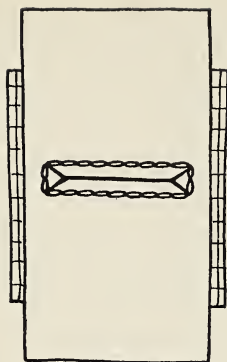
Cut a piece of cambric that will extend two inches on all sides of the marked line. Fold the cambric lengthwise through the center and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the pocket opening. Baste on this line and around the outer edge, taking care to keep the cambric and fabric smooth (A-I). Mark and stitch on the cambric on the wrong side of the garment $\frac{1}{8}$ inch from the basted line of opening, forming a rectangle. Take care to make square corners, as the secret of a well-tailored pocket is parallel lines in the rectangle. The stitched rectangle should be the desired width of the pocket.

Cut the pocket strip two inches wider than the width of the pocket opening and twice as long as the pocket when finished. One or two inches should be allowed for seams. Crease the pocket strip in the center and place the right side of the pocket to the right side of the garment, matching the crease of the right side of the strip to the marked line of the pocket. Baste the strip to the garment along the marked line. Stitch on the wrong side of the garment around the rectangle (A-II).

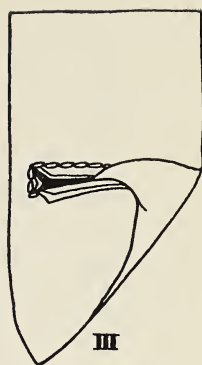
Cut the pocket strip, garment, and cambric along the marked line in the center of the rectangle forming a "V" at each end, taking care when clipping not to cut through the stitching. Turn the pocket strip through the cut opening (A-III). Baste and press the seams at both ends and sides carefully. Turn down the top piece of the pocket strip to make the pocket. Baste and



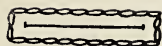
I



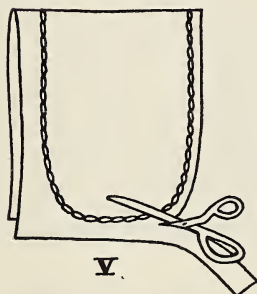
II



III



IV



V



VI

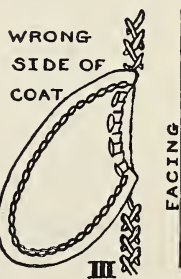
A



I



II



III

B

FIGURE 165

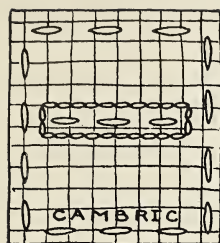
stitch around the three sides of the pocket and finish the raw edges with overcasting or pinking (A-VI).

Pockets may be set in seams, or in coats between the facing and edge of the lining. Cut the pocket the desired shape and size (B-I) and stitch the two right sides together (B-II). Place the pocket between the lining and the coat on the right-hand side of the coat and pin in place. After the pocket placement has been adjusted pin the edge of the pocket to the lining. Draw the pocket out from between the lining and the coat and re-pin so that the right side of the pocket and the lining come together. Make a plain seam and place the pocket in its former position between the lining and the coat. Turn under a narrow hem on the other side of the pocket and baste to the facing. Stitch the edge to the facing with a close warp stitch. Press carefully. If a trimming is desired along the pocket opening, a narrow folded strip of plaiting may be basted along the pocket opening on the coat lining before the pocket is basted on. Place the raw edge of the plaiting to the raw edge of the lining and stitch when the pocket is stitched to the lining.

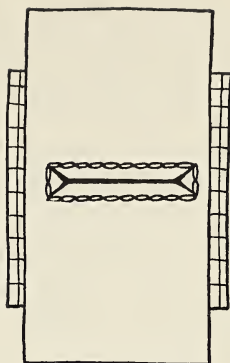
Bound Pocket (Figure 166). — Determine the location and width of the pocket and mark the line of the pocket opening with a basting.

Cut a piece of cambric that will extend two inches on all sides of the marked line. Fold lengthwise through the center and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the pocket opening. Baste on this line and around the outer edge, taking care to keep the fabric smooth (I). Mark and stitch on the cambric on the wrong side of the garment $\frac{1}{4}$ inch from the basted line of opening, forming a rectangle the desired width of pocket and twice the desired width of the finished biased edges. Take care to make square corners.

The pocket strip is cut two inches wider than the width of the



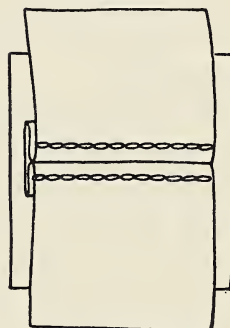
I



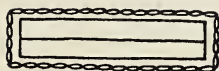
II (right side)



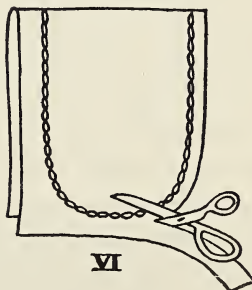
III



IV (wrong side)



V



VI

FIGURE 166

pocket opening, twice as long as the pocket when finished plus the amount needed for the two folds, one to two inches being usually allowed for seams (II).

Crease the pocket strip crosswise so that one side is about one inch longer than the other. Place both the right side of the pocket strip and the right side of the garment together, carefully matching the crease with the marked line, allowing the longer end to extend below the marked line. Pin and baste the strip in place. Stitch on the wrong side of the garment on the cambric around the rectangle. The two stitchings help to make the rectangle more secure. Cut the pocket strip, garment, and cambric along the marked line in the center of the rectangle, forming a "V" at both ends. Take care in clipping not to cut through the stitching (III).

Turn the pocket strip through the cut opening to the wrong side and crease the fabric on the seam line. Fold the strip so that a binding is formed over the seams and the edge of the bindings meet at the center and form an inverted plait on the wrong side at each end of the pocket opening (IV). Stitch along the lower pocket edge below the binding. Stitch through the pocket and garment on the upper edge of the binding and on the ends (V). Even the bottom of the pocket (VI). Stitch the pocket edges together and finish the raw edges with overcasting or pinking.

Lap Pocket (Figure 167).—Determine the location of the pocket and mark the line of the pocket opening with basting. Cut a piece of cambric that will extend two inches on all sides of the marked line. Fold lengthwise through the center and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the pocket opening. Baste on this line and around the outer edge, taking care to keep the fabric smooth (I). For an inch lap, mark $\frac{1}{4}$ inch from the basted line at the top and ends and $\frac{3}{4}$ inch below the basted line. Cut the pocket strip two inches wider than the width of the pocket

opening, and twice as long as the pocket when finished. One to two inches is usually allowed for seams (II).

Crease the pocket strip in the center and place the right side of the pocket strip to the right side of the garment, matching the crease to the marked line of the pocket. Baste firmly together on the marked line. Around the stitched rectangle on the wrong side of the garment make the stitching. Cut the pocket strip, garment, and cambric along the marked line, forming a "V" at each end. Take care when clipping not to cut through the stitching (II).

Turn the pocket strip through the cut opening. Fold back the material along the seam lines at the ends and press the seam at upper edge of the slit (III). Fold the strip from the lower edge of the opening so that it fills the opening and touches the upper edge. This forms the lap (IV). Baste the lap in place and stitch across the

ends and bottom of the opening just outside the seam line on the right side (V). Turn the top of the pocket strip down to make the pocket. Even the bottom of the pocket (VI). Baste and stitch the edges of the pocket together and finish the raw edges with overcasting.

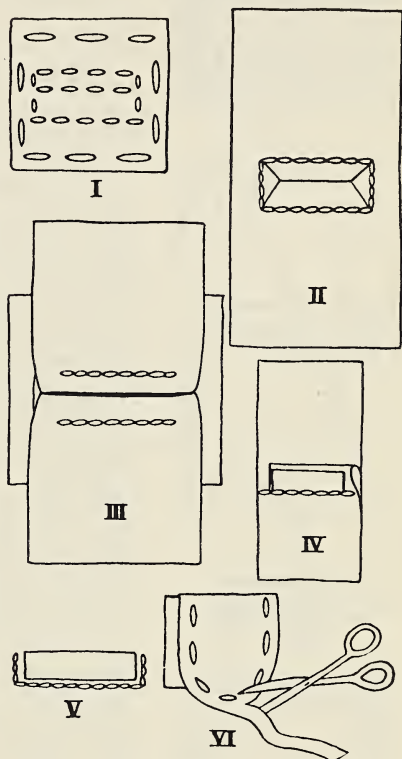
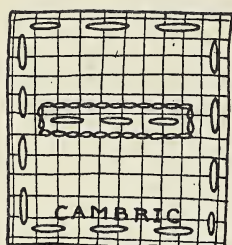
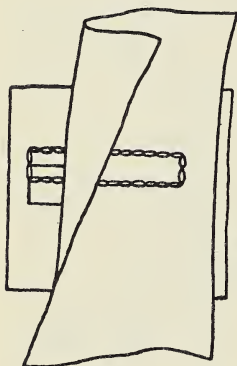


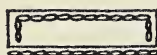
FIGURE 167



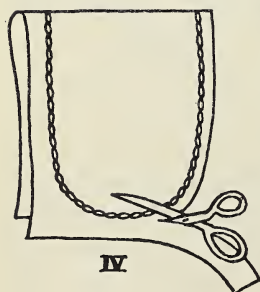
I



II



III



IV

Welt Pocket (Figure 168). — The welt pocket resembles the lap pocket in appearance but is sometimes preferred when the pocket takes a diagonal slant on the garment or when a wide lap is desired.

Determine the location and width of the pocket and mark the pocket opening line with a basting.

Cut a piece of cambric that will extend two inches on all sides of the marked line. Fold lengthwise through the center and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the opening. Baste on this line and around the outer edge, taking care to keep the fabric smooth. Then stitch $\frac{1}{4}$ inch on each side parallel to center basting and across the ends of the stitchings forming a complete rectangle (I). For a $\frac{3}{4}$ -inch welt mark $\frac{1}{4}$ inch below the basted line. Cut the strip for the welt one inch longer than the pocket opening and two inches wide. Fold the strip through the center with the right sides together. Baste and stitch across the ends so that the finished length is exactly the same as the length of the marking line. Clip the corners carefully. Turn the right side out and press the seams. Place the welt to the right side of the garment with the unfinished edge $\frac{1}{4}$ of an inch below the line

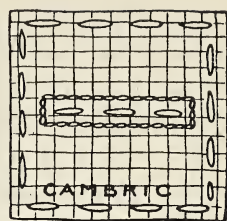
FIGURE 168

of marking and the finished edge extending downward on the garment (II). Crease the pocket strip through the center. Place the right side of the pocket strip to the right side of the garment so that the crease comes on the line of basting. Baste firmly together on the marked line. Stitch on the wrong side of the garment around the stitched rectangle.

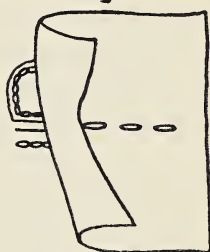
Cut the pocket strip, garment, and cambric along the marked line to within $\frac{1}{4}$ inch of each end. Clip diagonally to the corners of the pocket opening, forming a "V" at each end, but do not cut through the stitching. Turn the pocket strip through the cut opening and the welt will turn up into place on the right side. Press the lower seam downward. Baste the ends of the welt to the garment (III). Even the bottom of the pocket and baste and stitch the edges of the pocket together (IV). Finish the raw edges with overcasting or pinking.

Flap Pocket (Figure 169). — Determine the placement of the pocket and mark the line of pocket opening with basting. Cut the pocket strip two inches wider than the width of the pocket opening and twice as long as the pocket when finished. Allow one or two inches for seams.

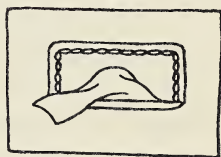
Cut a piece of cambric that will extend two inches on all sides of the marked line of the pocket opening. Fold through the



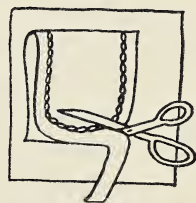
I



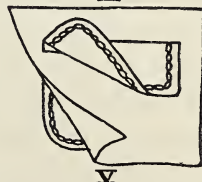
II



III



IV



V

FIGURE 169

center lengthwise and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the pocket opening. Baste on this line and around the outer edge, keeping the fabric smooth (I).

For a one-inch flap, cut a piece of fabric one inch longer than the line of the pocket opening and $2\frac{1}{4}$ inches wide. Fold lengthwise through the center with the two right sides together and seam the ends so that the flap will be exactly as long as the line of the pocket opening. Clip the corners, turn to the right side, and press carefully. Place the flap on the right side of the garment so that the raw edge comes exactly on the line of the pocket opening and the finished edge extends upward on the garment. Baste firmly in place (II).

Crease the pocket strip exactly in the center and place the right side of the pocket strip to the right side of the garment so that the crease comes on the line of the pocket opening. Baste the pocket strip to the garment.

Stitch on the wrong side of the garment exactly on the stitched rectangle. Cut through the cambric, garment, and pocket strip on the line of the pocket opening to within $\frac{1}{4}$ inch of each end (II). Cut diagonally to the corners, forming a "V," but do not cut through the stitching.

Turn pocket strip to the wrong side (III) and pocket flap will come over the pocket opening (V). Press the seams. Baste and stitch the edges of the pocket together and finish the raw edges with overcasting or pinking (IV).

40. Belts, Girdles, Sashes, and Ties. — Waist trimmings and ties add a note of chic (shèk) to the individual garment. Fashion usually dictates the placement of the waistline; but the belt, girdle, or sash should never be placed permanently on the garment until the figure has been carefully studied. Placing the belt line to suit the individual's figure is a problem which needs particular attention if the garment is to be a success.

There are two kinds of belts, the straight band and the designed. They may be cut straight or bias, although those cut on the straight of the fabric are more satisfactory. Belts may be fastened by snaps, buttons, buckles, hooks and eyes, or by tacking to the garment or stitching into the seams.

Belts may be made double or single. If they are double, care should be taken as to the correct placement of the seams. They come directly on the edge where they are least conspicuous. If there is only one lengthwise seam in the belt, the seam is placed to the bottom of the belt when it is fastened to the garment. If belts, sashes, or girdles must be pieced across the width, the seams should be so placed that they will follow the side seams of the garment. Sashes and girdles may be shirred at intervals, tucked, laid in folds, or designed in some other interesting manner.

Single Belts (Figure 170). — Cut the belt the length of the established belt line plus $\frac{1}{2}$ inch for seams and as wide as desired plus $\frac{1}{2}$ inch. The belt may be finished by hand or machine hemming, tiny rolled hemming, picoting, or binding. Fasten the ends together with snaps, hooks and eyes, buttons (Figures 187, 188), or a suitable buckle. The single belt is seldom used on garments because it lacks the body to hold it in place.

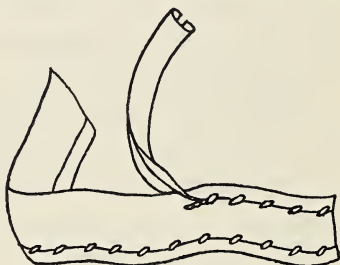
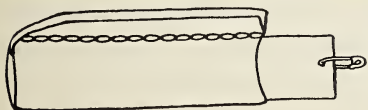
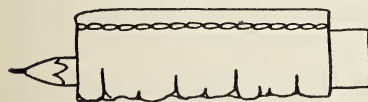


FIGURE 170



A



B

FIGURE 171

Double Belts (Figure 171). — Cut the belt the length of the established belt line plus $\frac{1}{2}$ inch for seams and double the desired width plus $\frac{1}{2}$ inch for

seams. The belt may be cut in one piece with only one side seam, or in two pieces. If the belt is made of two pieces, they may be of contrasting colors or fabric, thus carrying out the trimming on the garment.

Fold the material lengthwise or place the two strips together with the right sides together. Pin, baste, and stitch $\frac{1}{4}$ inch from the edge (A). Leave one end of the belt open and if the belt has been made too long, this end may be cut off before the belt is finished. Clip the corners, remove the bastings, and turn the belt to the right side by means of a safety pin fastened to the stitched end of the belt, or turn with a pencil (B). Press the plain seam so that the crease will come directly in the center of the fold. Fold in the open end and stitch securely together, using the slip stitch (Figure 19).

Girdles and Sashes. — The single or double girdle is made by the same process as the single or double belt except that there is extra allowance in width if there is to be shirring, tucks, or folds.

These decorations are made before the girdle or sash is seamed and extra length is allowed for lap, loops, or ties.

Ties (Figure 172). — Ties may be cut single or double and on the straight or bias of the fabric. They should be designed in keeping with the belt. Ties may vary in width, but they should never be

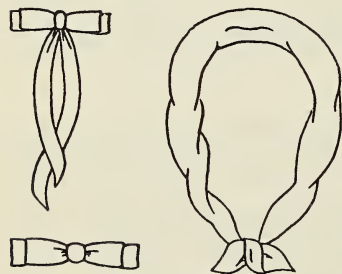


FIGURE 172

too wide. A tie is made in the same manner as the double or single belt or sash, the choice depending upon the garment with which it is to be used.

41. Linings. — There are two kinds of linings, namely, dress and coat linings. They may serve as a part of the garment, as a protection, or as both. They may be made out of many different

kinds of fabric, depending upon the type of garment and its use. Thin garments require linings as near the same shade as possible unless contrasting shades are desired. If this is the case, they should be worked out carefully so that the shades will blend with the garment.

Cream and flesh tints are very satisfactory for the average lining because they blend with the other colors and are fast. Many times colors are used that are not fast and they fade from perspiration and discolor the garment.

Linings should be cut in keeping with the lines of the garment. Dress linings may be attached or detached, fitted or semi-fitted. They should be designed so that the dress will fit smoothly over them. It is advisable to cut the lining a little smaller than the dress, and the tighter the dress, the more essential is the lining.

The neck line should be cut the same design as that of the dress, but shaped lower. The armseye should be cut $\frac{1}{2}$ inch larger than the armseye of the dress. The fullness for a fitted lining may be taken out by darts (Figure 90). Removable linings should be tacked securely along the shoulder and underarm seams. If the neck line is cut the same size as that of the dress, the neck lines should be placed evenly together and tacked securely. The wrong side of the lining should be placed to the wrong side of the dress.

The seams may be plain, French, or fell. Hooks and eyes should come together at the opening rather than overlap. Snaps, and buttons and buttonholes are used for the loose lining.

The kind of finish for the neck and armseye will depend upon the fabric and use of the lining. Picoting, hemstitching, facings, bindings, and hems are dainty finishes.

Waist Lining (Figure 173). — The bottom of the lining may come to the waistline or extend below it. It may be finished with a belt of self-material, boneless cotton, or silk web belting. The bottom of the extension below the waist may be finished like the

neck and armseye. The semi-fitted lining, when finished at the waistline, may be laid in plaits or gathered to fit the belt. Cut the belting the same length as the waist measure, plus $\frac{1}{2}$ inch. Turn under the ends of the belting $\frac{1}{4}$ inch and stitch in place with the feather stitch (Figure 31). Place the right side of the belting on the right side of the lining and pin the lining evenly onto the belting, lapping the lining and belting $\frac{1}{4}$ inch. Baste them together. The front opening of the lining should extend $\frac{1}{2}$ inch beyond the ends of the belting. The belting just meets and is

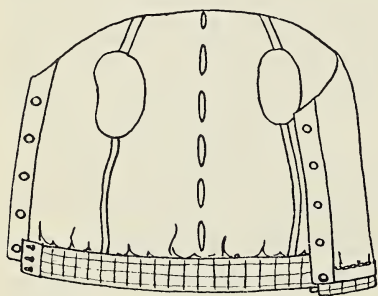


FIGURE 173

fastened with hooks and eyes sewed to the right side of it (Figure 188). The front of the lining laps from left to right and is held in place with snaps (Figure 187). Cut a piece of bias the length of the belting and twice the extended width of the lining, plus $\frac{1}{2}$ inch for seams. Turn under the ends of the facing $\frac{1}{4}$ inch. Pin and

baste the bias, starting on the right side at the belting, along the extension, and then to the wrong side, along the extension, over the raw edge of the lining. Keep the top of the bias even with the top of the belting. The right side is the inside of the lining. Stitch along the edge of the bias with the machine. Remove basting, press, and sew on hooks and eyes (Figure 188) and snappers (Figure 187).

If a band of self-material is used instead of web belting, the semi-fitted lining that extends below the waistline is gathered $\frac{3}{4}$ inch on each side of the waistline. A cotton or linen tape $1\frac{1}{2}$ inches wide is used on the right side (inside) of the lining.

To establish the waistline, place the lining on the model and pin a tapeline around the waist. Mark the length of the waist-

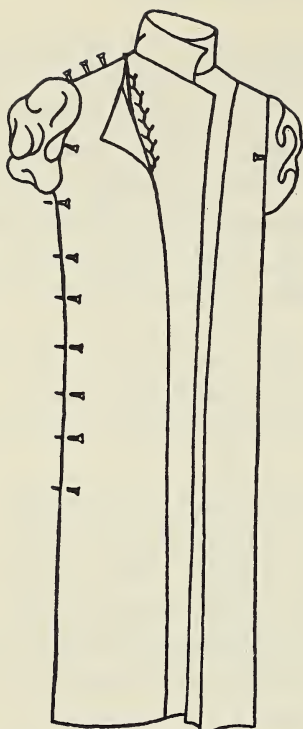
line with a pencil. Remove the lining and mark $\frac{3}{4}$ inch on each side of the waistline. Run a gathering thread along the marked line. Measure the tape the length of the waist measure, plus $\frac{1}{2}$ inch. Turn under the ends and press. Place the tape on the right side $\frac{1}{2}$ inch from the edge of the lining opening, and pin and baste the tape between the even gathers on each side of the waistline. Stitch on the machine close to the edge of the tape. Remove bastings and press carefully. Sew on hooks and eyes, and snaps (Figures 187, 188).

Coat Lining (Figure 174). — The coat must be completely finished and thoroughly pressed before the lining is put in. The lining that is completely made before it is stitched in place proves the most satisfactory.

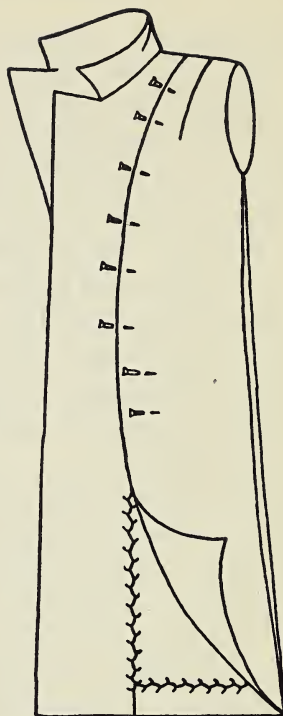
Cut the lining by the muslin-fitted pattern (page 206). In cutting the lining for the back of the coat, allow one inch on the center back fold of the lining for a plait. The plait prevents the lining from drawing and adds a neat, tailored effect. Pin, baste, and press the plait in the back of the lining the full length of the lining. A small box plait may be used instead of a plait if desired. Construct the lining as the tailored coat is constructed (page 209), except that the darts are basted and feather-stitched in place on the right side, instead of being machine-stitched.

The plain seams in the lining must be stitched, dampened slightly, and pressed open. It is necessary to clip the seams at intervals to within $\frac{1}{8}$ inch of the stitching to insure the "give" required in all well-tailored garments.

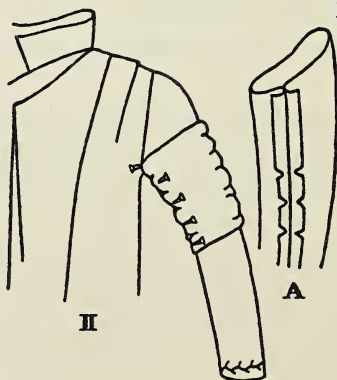
After the lining is constructed and the seams have been pressed open and carefully clipped, the plain seams of the lining are matched to the plain well-pressed seams of the coat, matching the wrong sides of coat and lining. Sewing seams to seams insures a durable lining. First match and pin the shoulder seams of the coat and lining together exactly where the shoulder seams



I



III



II

A

FIGURE 174

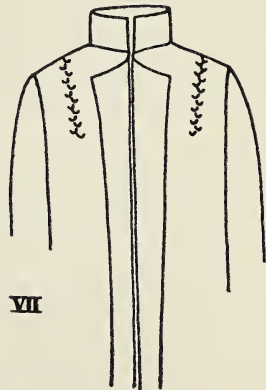
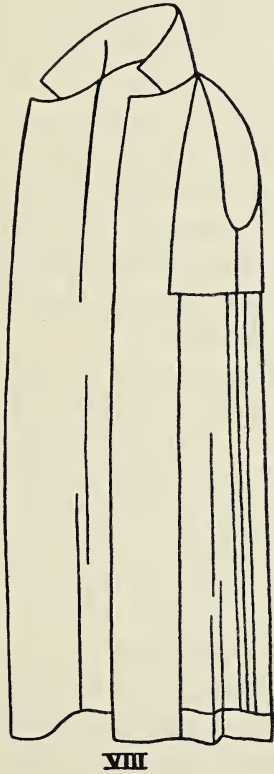
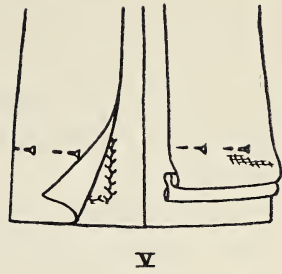
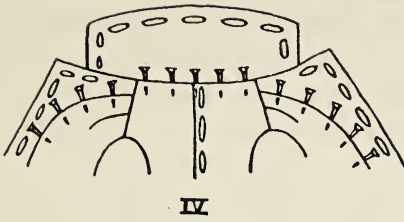


FIGURE 174 (*continued*)

join the sleeve. Then pin from the armseye to the neck line (I). Beginning on the wrong side at the armseye, backstitch (Figure 14) the two seams together to within two inches of the neck line. In stitching the seams together be very careful not to draw the stitches tight as this will cause both seams to draw and ruin the finish of the coat.

Pin the underarm seams together where the underarm seam joins the armseye. Pin from that point toward the bottom of the coat. Stitch the two seams together on the wrong side of the lining, using the backstitch. Be sure to begin at the top and stitch to within twelve inches of the bottom of the coat.

Working on the wrong side of the lining, pin the seam of the sleeve lining to the coat seam at the elbow (II). Turn the bottom of the sleeve lining up to the right side and tack the bottom of the seam of the lining to the seam of the coat sleeve. Match the center front of the coat and lining of the sleeve midway between the shoulder and underarm seam. Tack securely together. Repeat the same process for the back of the sleeve.

Pin the front lining at the shoulder seam, beginning two inches from the neck line, and pin the lining down the front to the facing (III). Pin the back of the lining to the center of the collar. Beginning at the bottom of the coat, trim the lining so that it extends one inch beyond the raw edge of the facing. Beginning at the waistline of the coat, turn under the lining and pin so that it just covers the raw edge of the facing. Care must be taken to ease the lining over the bust line so that it will not draw.

The lining at the shoulder seam should come within two inches of the neck line in front and extend just to the neck line in the back. The lining around the neck line in the back is turned under and pinned over the raw edge of the collar. Care must be taken to keep the plait in position in center back when the lining is pinned (IV). Baste the lining along the facings and around the back of the neck line. Put the coat on wrong side out and have

the fitter weave in pins three inches from the bottom of the coat hem line through the lining and coat (V). Straighten the sleeve lining even with the coat seam and weave in pins three inches from the bottom of the sleeve line through the bottom of the sleeve. Cut the lining exactly even with the edges of the bottom of the sleeve and coat. Turn under a narrow hem at the edge of the lining and push the lining up and pin $1\frac{1}{2}$ inches from the edges of the bottom of the coat and sleeve. Pin and baste in place, taking care to match seams. Care must be taken to place the plait at the bottom of the coat in the back so that it corresponds with the one at the top. Where the facing and hem meet, fold several small plaits in the lining to take up the extra fullness (V). Baste in place and sew the lining in place with the warp stitch (Figure 20). Easing the lining in this manner gives ample room and prevents the coat from drawing. The feather stitch (Figure 31) is used to hold the darts and plaits in place (VI, VII). For the darts, allow one inch from the shoulder seam line before making three inches of feather stitching. For the plait in center back, allow two inches from the center neck line before making five inches of feather stitching down the back.

Coats are sometimes lined with "half" linings (VIII). The linings are made and attached exactly like a long lining, except the bottom is hemmed and left loose.

42. Laces. — "Lace" is derived from the Latin word "laqueus," which means to snare as with a noose. Lace dates back to old Egypt, but it is not until the early first century that we have any material like lace as we know it.

There are many kinds of laces, but the four distinct types are German Val, French Val, Cluny, and Torchon.

Laces are used for trimming and decoration. The color, design, material, and use of the article will determine the kind of lace needed.

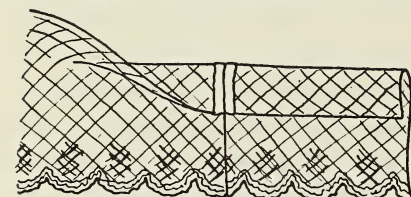
All laces are made of some definite design. Therefore, great

care should be taken in choosing laces as to quality, daintiness, design, and use.

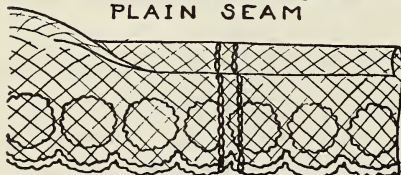
Joining Lace (Figure 175). — Before cutting the lace, the design should be carefully examined and matched. The cut ends may be joined by a plain seam, flat fell seam, by buttonholing,

whipping, or blanket stitching. The seam should follow the outline of the design in laces of heavy design. The lapped seam is used when joining very fine laces, and the flat fell seam is used to join laces that ravel easily. Laces that do not have a distinct design, or laces that are cut for placket openings may be basted on a piece of paper and stitched several times where they are to be cut. This helps to keep the design of the lace in place.

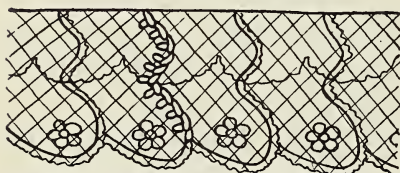
Corners. — When mitering corners on lace (Figure 120), plan the exact location of the seam, and plan so that the design in the lace will match. Begin at the outer edge of the lace and baste a seam, allowing a V-shaped piece large enough to make the lace lie flat. Stitch by hand with backstitches and trim off the excess fabric.



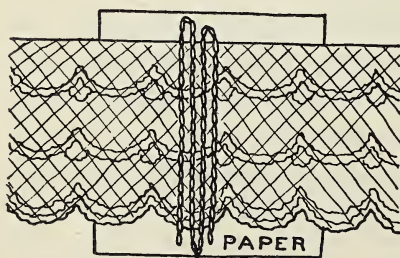
PLAIN SEAM



FLAT FELL SEAM



BUTTONHOLED SEAM



CUT HERE
MACHINE STITCHED SEAM

FIGURE 175

The seam may be flat felled to the lace in a tiny seam or closely overcast (Figure 12).

Attaching to Edges (Figure 176). — There are two methods of applying lace to edges; namely, by hand or by machine. Lace lends a daintier and more attractive finish when put on by hand. If the hand-made appearance is unimportant, however, the lace may be stitched to the edge by machine.

If the lace is applied by hand, it should be neatly whipped with tiny even stitches. Rolled hems, overhanding, or French hems may be used (A, B, C). If the lace is applied without gathers, do not stretch the lace; if applied with gathers, be sure to keep the gathers even. There is a thread along the upper edge of the lace which may be pulled up and used for a gathering thread (D). Gathered lace should be held in a third more than the distance of the edge to which it is to be attached.

There are two methods of applying lace by machine. When the lace is applied before

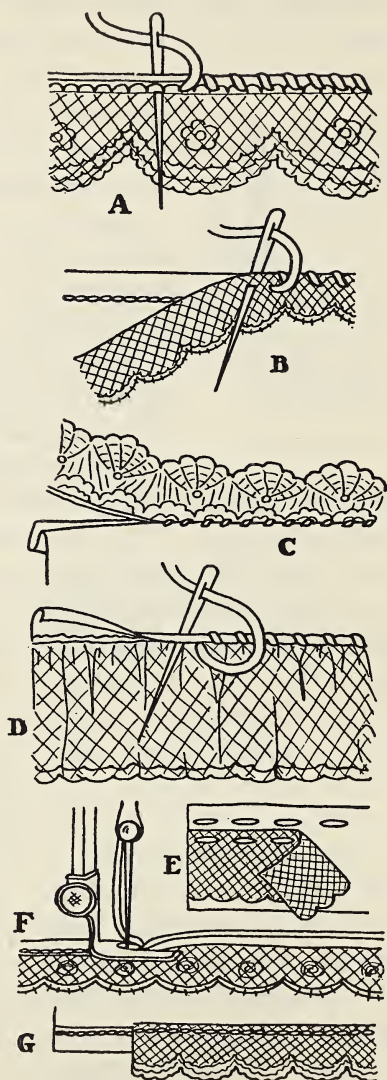


FIGURE 176

the hem is put in, the fold-line of the hem is marked with a crease or basting (E). Place the right side of the fabric together so that the edge of the lace extends about $\frac{1}{16}$ inch beyond the marked edge of the hem. Baste in place and stitch. The lace will readily fall into position when the hem is turned back, and the machine stitching is not so apparent (F).

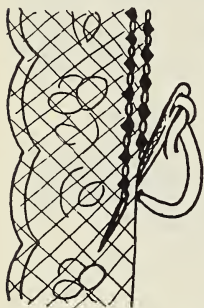
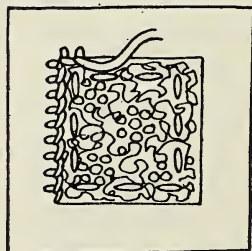


FIGURE 177

Lace may be applied after the edge has been finished. Place the right side of the lace to the right side of the edge of the hem, so that the edge of the lace laps over the edge of the hem just enough for stitching. The decorative edge will extend beyond the edge of the fabric and is stitched in place with the machine (G).

Lace Fagoted to Fabrics (Figure 177). — This method gives a dainty finish for fine undergarments and children's clothes. The lace is basted securely $\frac{1}{2}$ inch from the raw edge. The thread used should be as nearly as possible the same weight as that of the lace. The lace is attached with a three-sided needle, and a stitch is used much like Bermuda fagoting (Figure 46).



FRONT

Medallions (Figure 178). — Medallions are forms of inserted lace and make a very attractive decoration. Place the medallion on the right side of the material and baste in place. The outer edge of the medallion may be stitched

BACK

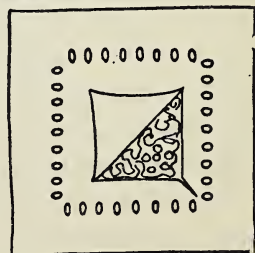


FIGURE 178

by machine, hemmed, buttonholed, overcast, or fagoted. When the medallion is firmly fastened to the fabric, cut the fabric from beneath it, being careful not to cut the stitches. Tuck under the raw edge and finish with tiny overcasting so that it resembles a rolled hem.

Insertion (Figure 179). — One of the most common and simplest methods of applying insertions is the use of a small hem with the insertion overhanded to the edge of the hem (A).

This is used only on very sheer fabric because almost all of the work is done by hand. Mark on the garment the position of the insertion, pin the insertion in place, and baste the edges to the material. Turn to the wrong side, and with a pencil draw a line through the center. Using a sharp pair of scissors, cut the material following the marked line. Be very careful not to cut the insertion. Turn both edges back over the line of basting and baste in place.

Turn the material to the right side, and overhand both edges of the insertion firmly to the fabric. Again turn to the wrong side, and cut away the surplus fabric, close to the lines of stitching. Finish with a tiny hand hem.

Another method of applying insertion is often used on heavier fabrics. Baste the insertion into position and stitch along the edges with the machine (B). Turn to the wrong side, cut the material through the center of the insertion, and trim to within $\frac{1}{2}$ inch or $\frac{1}{4}$ inch of the insertion. Fold the

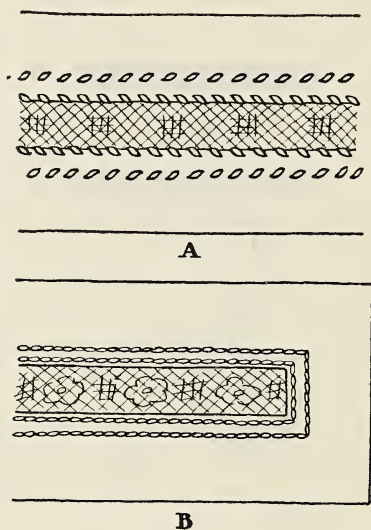


FIGURE 179

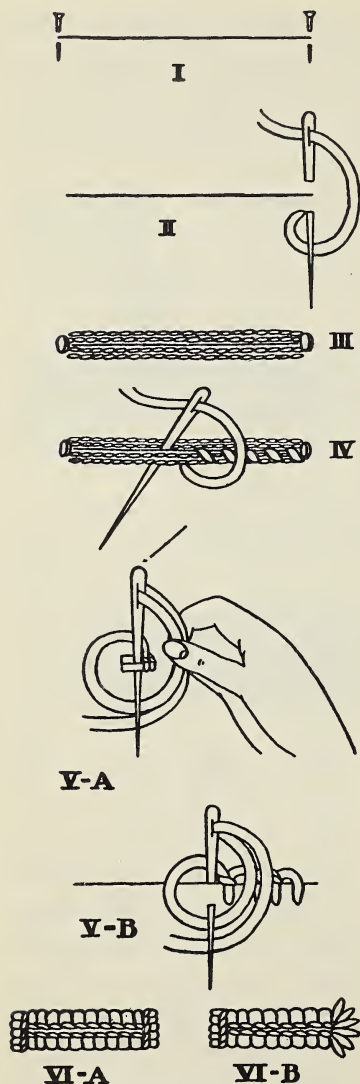


FIGURE 180

raw edge twice and baste. Stitch on the machine and press.

43. Fasteners. — There are four styles of fasteners, namely, *buttons and buttonholes, hooks and eyes, snaps, and glide fasteners.* The style of garment, the use, and the material determine the kind of fasteners to use.

Buttons and Buttonholes. — This style of fastener is generally used on washable fabrics. The buttonholes should be made before the buttons are sewed on so that the placement of the buttons is correct.

Worked Buttonhole (Figure 180). — The worked buttonhole is the one commonly used and it may be made with a bar at each end, or with fans. The buttonhole may also be varied by using a bar at one end and a fan at the other, especially if there is to be a strain on the buttonhole. Buttonholes should be made on the upper side of the closing except in the case of the fly placket (Figure 138), where they are made underneath.

To mark the location of the buttonhole, measure with a tape

the length of the buttonhole strip. With this measurement, the distance between the buttonholes can be equally proportioned. With a gage, mark the established distance of each buttonhole and weave in pins parallel to the way the buttonhole is to be made. Be sure to keep the heads of the pins the same distance from the folded edge.

When the buttonholes have been marked carefully (I), pin the length of the desired buttonholes (II). Mark each end of the buttonhole with a tiny knot stitch (Figure 2) and remove pins. Measure a button on the established buttonhole to be sure that the buttonhole is large enough. The buttonhole should be slightly larger than the button as it becomes tighter after it is worked. To prevent the material from slipping, stitch two rows of machine stitching on either side of the buttonhole line the length of the buttonhole and remove the knot stitches (III). Make the rows of stitching as close together as possible. The machine is the most satisfactory to use, but tiny hand stitches may be used. Starched linen tape may be used between the fold to reinforce buttonholes.

Do not cut the buttonholes until ready to work as they will fray and make sewing difficult. Insert the point of a small, sharp pair of scissors at one end and cut from one line of stitching to the other, so that there are two rows of machine stitching on either side of the buttonhole. Cut as near as possible along a thread of the fabric. This prevents ragged slits and the buttonhole is more attractive when finished. Thread a needle with thread about two sizes coarser than is used for stitching the garment. *Always use a single thread in working buttonholes.* Weave in the end of the thread and overcast around the buttonhole slit (IV), if there are any ragged edges. (V-A) Place the buttonhole over the forefinger of the left hand with the folded edge of the buttonhole strip toward the palm. Hold the buttonhole slit firm with the thumb and second finger. Begin to work the but-

tonhole at the lower right-hand corner of the slit. Put the needle through the slit, and back from the edge the distance the buttonhole stitch is to be. (V-B) Before drawing the needle through the material bring the thread from the needle's eye under the point of the needle from right to left. Draw the needle through the loop and pull the needle away from the worker, drawing the thread tight and allowing the purl (V-B) to come exactly on the edge of the slit. Continue these stitches to the opposite end, being careful to make them all the same depth and close together.

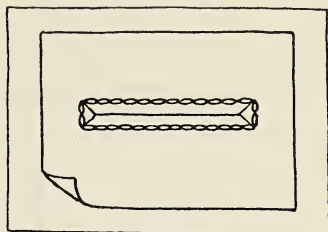
(VI-A) In making a double bar tack (bars at each end) buttonhole, when one side is worked, pass the needle up and down through the material at the end of the slit until three stitches are made. Be sure to insert the needle each time into the same hole where the first stitch was made. Turn the work around so that the bar end is held toward you. Work the buttonhole stitch over the bar and through the fabric until the bar is covered, keeping the purls toward the buttonhole. Work the other side of the buttonhole slit and the second bar just as the first was made.

(VI-B) To make the buttonhole with the fan end, work one side of the buttonhole slit and take the stitches on a slant at the end of the slit, inserting the needle each time at a little different angle until the end is rounded. This gives the effect of spokes of a wheel. Work the other side of the buttonhole slit and fan as the first was worked. When the buttonholes are finished, dampen on the wrong side and press thoroughly.

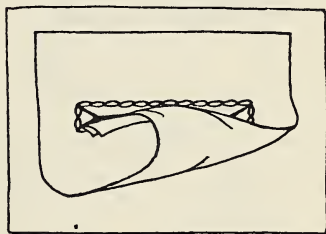
Bound Buttonhole (Figure 181). — Bound buttonholes are used to give a tailored effect. The strips for binding may either be bias, crosswise, or lengthwise, the lengthwise strips being preferable. Ribbons, braids, contrasting weaves, colors, and different fabrics may be used for decoration. Regardless of the way the strip is cut, the same method is used in making. The slash may be either on the straight or diagonal of the fabric.

There are two methods that may be used for binding slashes.

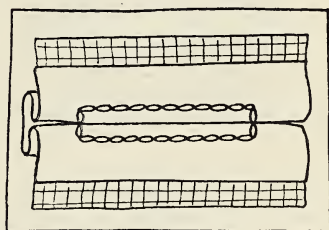
The first method (A) is the easiest to make and insures a smooth fold. Determine the location of the buttonhole and mark the line of the buttonhole opening with a basting. Cut a piece of cambric to extend two inches on all sides of the marked line. Fold lengthwise through the center and pin the cambric to the wrong side of the garment so that the fold comes exactly on the marked line of the buttonhole opening. Baste on this line and around the outer edge, taking care to keep the fabric smooth. Baste and stitch on the cambric on the wrong side of the garment $\frac{1}{8}$ inch from the basted line of opening, forming a rectangle (I). Take care to make square corners. The buttonhole strip is cut one inch wider than the width of the finished buttonhole opening, and three inches longer. Crease the buttonhole strip in the center and place together the right sides of the buttonhole strip and garment, carefully matching the crease with the marked line, allowing $\frac{1}{2}$ inch to extend beyond each end of the buttonhole. Pin and baste the strip in place, and stitch on the wrong side of the garment on the cambric around the rectangle, taking care to follow the first



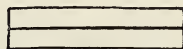
I



II



III (wrong side)

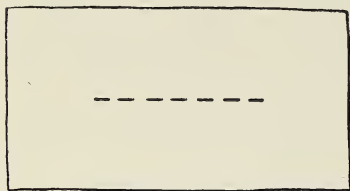
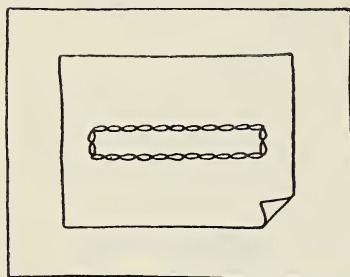
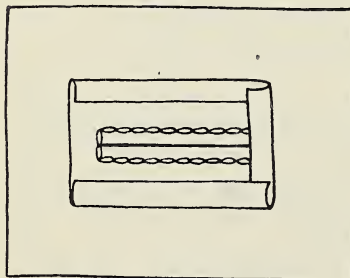
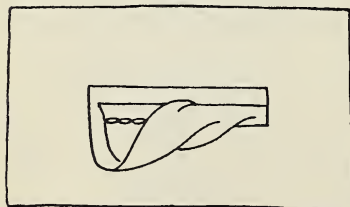


IV (right side)

A

FIGURE 181

stitching. Cut the buttonhole strip, garment, and cambric

**I****II****III****IV****B**

along the marked line in the center of the rectangle to within $\frac{1}{8}$ inch of each end. Clip diagonally to the corners of the buttonhole, forming a "V" at each end, but do not cut through the stitching. Remove bastings (II).

Turn the buttonhole strip through the cut opening to the wrong side. Fold the strip so that a binding is formed over the seams; and the ends should meet at the center, forming a box plait on the wrong side at each end of the buttonhole opening (III). Fasten the plait with a few backstitches (Figure 14) and sew the binding in position along the stitched line. Do not turn the edges under; but they may be overcast (Figure 12). Dampen and press on the wrong side (IV).

In the second method (B), the buttonhole strip is cut $\frac{1}{2}$ inch wider and $1\frac{1}{4}$ inches longer than the finished buttonhole. Turn in the outer edge of the strip to the wrong side $\frac{1}{4}$ inch. Baste and press. Crease the strip through the center. Use the same steps

FIGURE 181 (continued)

for applying the strip as in the first method as far as to cutting the opening for the buttonhole. Cut the buttonhole along the line marked by the basting, cutting through cambric, garment, and buttonhole strip to stitching at the end, but not through. Clip diagonally to the corners (A-I). Remove bastings (I, II). Turn buttonhole strip through cut opening to the wrong side. Fold strip so that a binding is formed over the seams, with the edges of the binding meeting at center opening. Slip stitch (Figure 19) the folded outer edge to the garment along the machine line of stitching. Stitch the ends so they will not fray. Dampen and press on the wrong side (III, IV).

Looped Buttonhole, Worked (Figure 182). — Worked buttonhole loops are made of silk, cotton, or wool; silk buttonhole twist having the widest usage. Work with a single thread and fasten the thread on the wrong side of the material. Bring the needle through to the right side. Leave the desired length of the

loop and insert the needle (A-I). The size of the loop will depend upon its use and the size of the button. A small pencil may be used in making the loops so as to keep them of uniform size. Bring the needle to the right side of the fabric, close to where it was inserted. This makes a tiny stitch at each end. Continue making loops from side to side until the desired number is made. Make a small backstitch after the last loop is made to prevent the loop from slipping. Remove the pencil. Cover

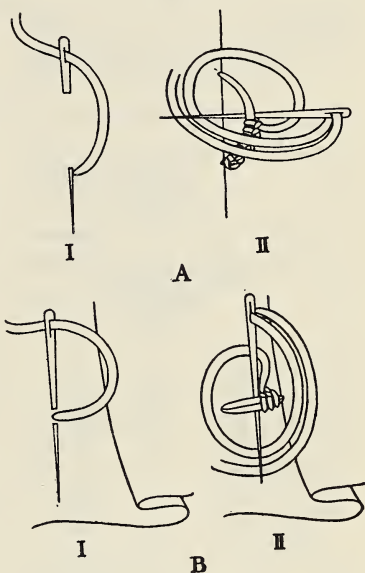
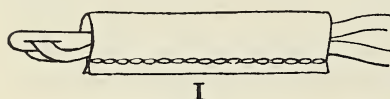
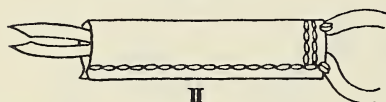
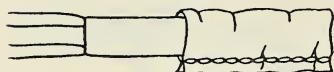


FIGURE 182

the loops with close, even, buttonhole stitches (Figure 17) and fasten the thread on the wrong side (A-II). French tacks are made in exactly the same way except that they lie flat on the garment instead of being looped (B-I, II). They are used to

**I****II****III-A****III-B****IV-A****IV-B****FIGURE 183**

hold belts, girdles, collars, cuffs, etc., in place, that should not be fastened firmly on a garment.

Looped Buttonhole, Fabric (Figure 183).—Buttonhole loops are decorative and attractive fasteners, and are made of bias strips of fabric. Cut the strip twice the width of the finished loop plus a seam allowance that is a little smaller than the finished loop and long enough to make the number of loops desired. Place the two right sides together lengthwise and crease. Stitch twice exactly through the center of the strip and trim off the raw edge $\frac{1}{16}$ inch. If the fabric is of loose weave, stitch several times as this will prevent the

fabric from raveling when the lengths of the loop are measured and cut off. Run the eye end of a darning needle that has been threaded with a cord twice the length of the bias strip, through the center of the strip (I). Cut the needle from the cord and very carefully baste one end of the cord at the seam and the other at the fold of the strip. Make several rows of machine stitching along the end of the strip to hold the cord

firmly in place while it is being pulled through the strip (II). Pull the cord a little at a time and push the fullness toward the end. With the thumb and finger, hold the cord tightly above the fullness, and with the right hand stroke the fullness out, turning the strip gradually inward (III-A). Again pull the cord slightly and continue as before. Work in this manner until the strip has been completely turned to the right side. A strong hairpin may also be used in turning the strip (III-B). The ends of the hairpin are inserted in the strip and the head of the pin is firmly tacked to the end of the strip. Turn as for the cord. Cut the cord close to the stitching. Press carefully so that the seam comes directly on the fold. With a gage, measure off on the strip the desired length of the loop and mark with the knot stitch. Stitch on the machine twice at marking and cut between stitching. This prevents the cord from slipping out and stitches the fold of the fabric flat. Padding the loop with self-material is much better than using cord as it makes a more pliable loop.

Always sew the loops in place by turning the seams inward (IV-A). The spread of the loop will depend upon use as well as the kind of garment it is used on. The size of the button will gage the length of the loop. Looped buttonholes are generally placed between folds of fabric. When the buttonhole loops are not in-

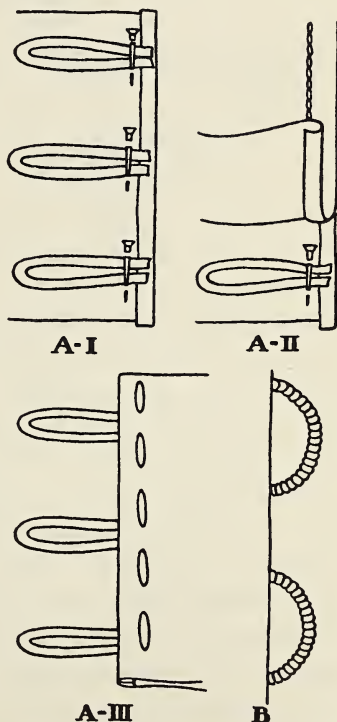


FIGURE 184

served in seams, they are sewed on with the ends of the loop rolled (IV-B).

Elastic and Cord Buttonholes (Figure 184). — Elastic and cord are satisfactory for making some buttonhole loops (A-I, II). The elastic loop should be made a little smaller than desired because it "gives" when put over the button. The cord is made the exact size (A-III) but the loops may be spread apart (B).

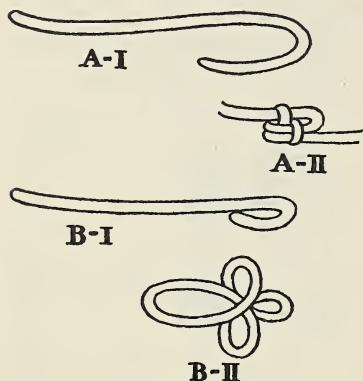


FIGURE 185

These two kinds of loops are attached in the same way as fabric looped buttonholes.

Frogs (Figure 185). — Frogs are decorative, designed fasteners made in two parts. The two parts are made alike with the exception that one part of the frog ends in a loop and the other ends in a knot to fit the loop. Cut the two lengths of cord, one ten inches long and the other fourteen inches long. Take the

longest strip, and fold back on the double about five inches from one end (A-I). On this double end tie a loose knot, keeping the cords parallel (A-II). Leave enough space on this looped end to slip the short end through. Pull very tight, bringing the shortest end to the under side of the knot, and fasten in place. Form a third loop designed with the other end of the cord, making the center loop the larger as it is to be used as a fastener. Using the shorter piece of cord, make a $1\frac{1}{2}$ -inch loop without twisting the cord. In the place where the loops join the cord, sew on the under side about $\frac{3}{4}$ inch with very fine stitches. Make a third loop design with the remainder of the cord and fasten securely on the under side. The parts of the frog and the loop end must be the same size when finished.

Buttons. — The three materials used in the making of buttons are pearl, metal, and cloth.

Pearl Buttons. — Pearl has long been the favorite material for button manufacture. The inside of the oyster shell was found to be easily made into buttons, and the industry grew rapidly. The buttons are first cut to the desired size; holes are bored; the buttons are polished and bleached. The finished buttons are then fastened to cards, a certain number of the same size to each card, and sold.

Metal Buttons. — Except in their use on uniforms, metal buttons are used where strength rather than decoration is to be considered, although with changes in style metal buttons flourish now and then as ornaments. The industry in the United States dates back to 1802, with the making of gilt buttons in Waterbury, Connecticut. Later, brass was used. Now, disks or blanks are cut from sheet metal of various kinds, gold, silver, iron, copper, brass, or aluminum, and molded or pressed into any desired shape. The designs or letters are stamped on with dies.

Cloth-covered Buttons. — The manufacture of cloth-covered buttons in America began in the Easthampton parsonage of the Willistons, and Mrs. Emily Graves Williston was the maker. It soon spread to other houses in the village, and beyond, until a warehouse was needed. Material was brought from New York by boat to Hartford; then by train to Easthampton where the buttons were cut and finished. This hand manufacture grew until it employed over 1,000 families of Easthampton and its neighboring towns. Then Mr. Williston met a Creole, Francis Sidney, who told him how the machinery in a button factory was made and operated. With the aid of the plans and diagrams drawn by Sidney, Mr. Williston's friend Joel Hayden, an expert mechanic and successful inventor, made a successful machine. A partnership between Williston and Hayden was formed and the manufacture of cloth-covered buttons began in Haydenville.

Buttons are used for service or decoration and are made either with a shank or with holes for fastening. Service buttons are sewed to the garment, leaving a space between the button and garment for the buttonhole. Decorative buttons are sewed flat to the garment. Fashion dictates the size and shape of buttons.

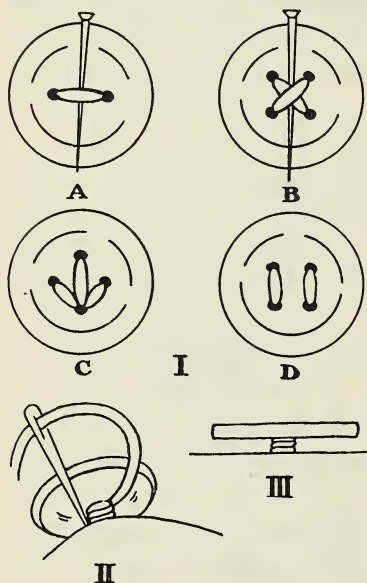


FIGURE 186

Sewing on Buttons (Figure 186). — Pin the finished buttonhole strip to the strip where the buttons are to be sewed. Mark a dot with a pencil in the center of each buttonhole where the buttons are to go. To sew on a two-hole service button, use double thread. Fasten the thread on the right side by taking a small backstitch (Figure 14) on the pencil dot. Bring the needle up through one hole in the button and down through the opposite hole to the wrong side of the fabric. The width of the stitch should be the same as the distance between the holes in the button,

and the stitch should be made parallel to the edge of the garment. Sewing the button in this manner makes the strain on the button come in two places instead of one and makes it wear better. Again bring the needle to the right side through the first hole. Place pins on the right side of the button under the thread between the two holes and continue sewing as before (I A-B). The number of pins required depends upon the thickness of the fabric. When the button is sewed on, it should extend high enough so that the fabric will be smooth when buttoned. When

the button is securely fastened, remove the pins and bring the needle through to the back of the button and wrap the thread firmly around the threads at the back of the button (II). Bring the needle through to the wrong side of the fabric and fasten with a knot. In sewing buttons on men's suits the thread should be doubled and waxed. When sewing buttons on children's sleeping garments, use double yarn as they cannot be so easily pulled off.

Decorative buttons are sewed on in the same manner as service buttons, except that the pins are omitted and the thread is not wrapped around the back of the button.

Snap (Figure 187). — Snaps are used on flat surfaces and where there is no strain. The snap is a ball and socket fastener.

It should be sewed on the garment inconspicuously. Determine the location of the snaps by the kind of openings. Snaps should be near enough to the edge to prevent any turning back of the opening. The ball part of the snap is placed on the wrong side of the upper edge of the opening and

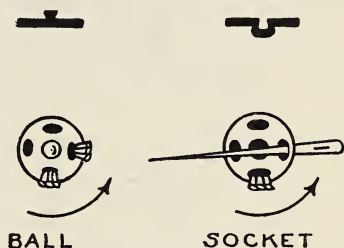


FIGURE 187

the socket part is placed on the right side of the under edge of the opening. Sew on all ball parts first, then close and pin the opening and press them together to determine the exact location of the socket part.

Always use a single thread to sew on snaps, and work from right to left. Fasten the thread by means of a knot stitch in the center where the snap will cover it. Snaps should be buttonholed to the fabric (Figure 17), working in the direction indicated by the arrows. Pass the needle under the snap to carry the thread from one hole to another. Fasten the thread with the knot stitch (Figure 2) on the wrong side close to the edge of the snap so that

it will not show. If snaps are sewed on where there is but one thickness of fabric, tape should be used on the wrong side or between the seams to reënforce them.

Hooks and Eyes (Figure 188).—

Hooks and eyes should be used on openings where there is any strain. Tape hooks and eyes may be used on long openings.

There are two kinds of hooks and eyes. The hooks are made with and without a hump (A). The two kinds of eyes are the straight (C), in which the edges are to lap; and the round (B), where the edges are to meet. Blind loops are sometimes used on garments to take the place of eyes (D-III). The hooks should always be placed on the wrong side of the lap. If the straight eye is used, it is placed directly under the outer end of the hook on the right side of the under edge of the lap. If the round eye is used, it should extend beyond the edge a fraction of an inch so that the edges of the

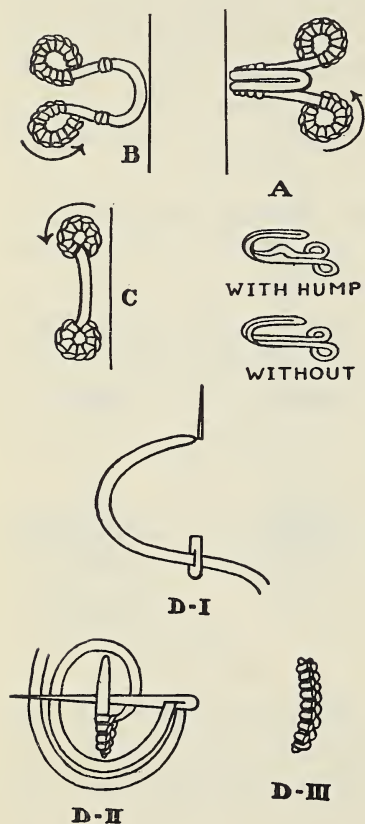


FIGURE 188

opening will just meet. With a gage, mark the location of the hooks with pins. Spread the hooks apart about $\frac{1}{4}$ inch as in (A). This makes the strain on the hook come in two places instead of one. Working in the direction as indicated by arrows, slip the needle between the two thicknesses of cloth

and buttonhole the ring on to the garment. The end of the hook should be tacked securely to prevent slipping. This may be done when fastening the threads. Care must be taken to keep the rings of the hooks even. Sew on all hooks first, and then lap the edges of the closing. Locate and pin the position of the eyes. The eyes are sewed in place in the same way as the hooks, with the exception that if the round eye is used, it is fastened at the sides to prevent slipping (B). Work from right to left. Good slide fasteners are very satisfactory and are made on a tape which is sewed to the garment. Care must be taken in ironing garments with these fasteners and they should not be run through the mangle as it crushes them.

44. Mending. — A patch is a piece of cloth used where darning or weaving cannot be applied. It is used to make the mending strong and unnoticeable. Except for contrast, the patch is always of the same material as that of the worn article. New fabric to be used on a faded or shrunken article should be treated to look like the garment fabric.

Set-In or Hemmed Patch (Figure 189). — The hemmed patch is very satisfactorily used on articles which are in constant use. Cut the patch to match the design of the article. Turn the raw edges of the patch to the right side and pin in place to the wrong side of the article, carefully matching the design. Baste and hem the patch to the article with small hemming stitches (Figure 18) or machine stitching. Turn to the right side and cut away the surplus material, allowing $\frac{1}{2}$ inch for a small turn. Cut the corners on

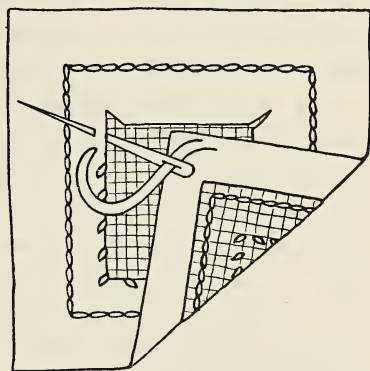


FIGURE 189

a diagonal line and turn the raw edge under. Baste in place and stitch carefully with tiny hemming stitches. Remove the bastings and press the patch, using a damp cloth so that the seams will be flat.

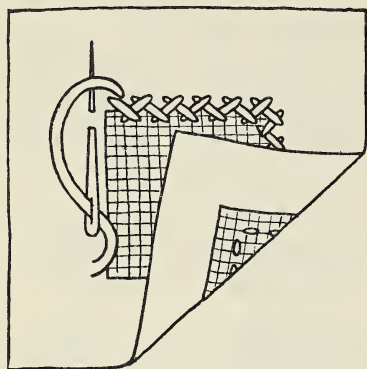


FIGURE 190

Catch-Stitch Patch (Figure 190). — This patch may be used on an article where careful matching is required. Cut the patch large enough to extend beyond the worn parts, matching all designs before cutting. Place the patch on the wrong side of the article, matching the design, and baste the patch to the garment.

Using the catch stitch (Figure 30), begin on the right side of the garment at any side of the patch and catch stitch completely around it. Be careful to sew all the corners securely. Remove the bastings and press.

Darned-In Patch (Figure 191). — Clip around the hole to be patched, so that the worn threads will be removed. Cut the patch a little larger than the hole, matching the threads and figures in the fabric. Baste the patch in place with diagonal stitches that catch the patch and the fabric. Sew the patch firmly in place with the darning stitch. Work on the wrong side of the fabric and make the stitches very tiny.

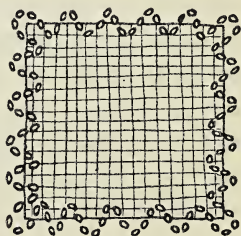


FIGURE 191

Overhand Patch (Figure 192). — Cut the patch large enough to extend one inch beyond the worn parts. Designs should be carefully matched. Pin and baste the patch on the right side of the article. Place the article on an ironing

board and mark with a tracing foot along the line for stitching. Remove the patch, clip the corners, and baste a $\frac{1}{4}$ -inch hem around the patch. Cut out worn parts, leaving about $\frac{1}{2}$ inch inside of the tracing line. Match, pin, and baste the patch to the wrong side of the garment. Whip neatly in place and press.

Darning. — Darning is a simple means of preventing tears as well as repairing worn garments. A needle in keeping with the size of thread should be used. To make an inconspicuous darn it is often desirable to use ravelings of the fabric being mended. If a raveling thread cannot be secured, the thread of the fabric should be matched as nearly as possible as to weight and color. Mercerized thread is preferable to silk.

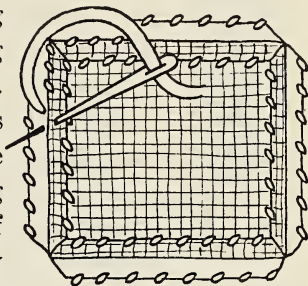


FIGURE 192

The darning stitch is used for reënforcing thin and worn places in the garments. Thin fabric may be basted under the worn part before the darning is done. A piece of paper may be tacked on the wrong side of the garment to keep the darned material together. This cannot be done, however, if the darning thread is to be turned on the wrong side of the work at the end of each line of stitches. In such a case, it is convenient to use an embroidery loop. It is easy to make an even, smooth darn when it is made over a form.

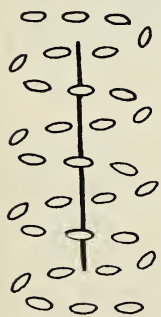


FIGURE 193

The three main kinds of darning are straight, diagonal, and three-cornered but there are others which have no classification. A straight tear is the easiest to darn if the edges have not been frayed. Darning should be very fine and inconspicuous. It should be made across the tear at right angles to the warp thread.

Straight Tears (Figure 193). — Match the torn edges and draw the edges together with rows of fine running stitches (Figure 11).



FIGURE 194

The stitches should extend far enough beyond the edges of the tear to reënforce the worn parts. Make rows of stitches of irregular lengths, and darn back and forth enough times to hold the edges of the tear securely together. When finished, cut the thread without fastening it, as a fastening would not be smooth.

Diagonal Tears (Figure 194). — Diagonal tears are more difficult to mend than the straight tear. The edges should be drawn together, and the warp threads should be filled in first. The tear should then be turned at an angle and rows of filling stitches should be put in.

Three-Cornered Tears (Figure 195). — Three-cornered tears are mended in the same way as straight tears with the exception that at the corner the rows of stitches are slanted in fan fashion.

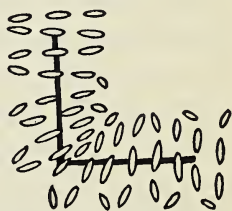


FIGURE 195

Darning Holes (Figure 196). — Trim the edges of the hole so that there are no ravelings. Put in lengthwise rows of running stitches and begin far enough from the edge so that the worn places are reënforced. Carry the threads

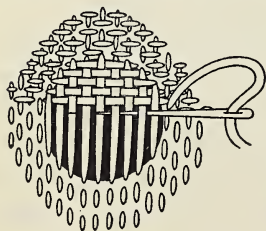


FIGURE 196

across the hole and make the running stitches on the other side. Make the rows about the width of a thread apart and make enough rows to cover the hole. Turn the garment and put in crosswise rows of stitches, weaving alternately over and under the rows just made.

UNIT II

THE PATTERN



■■■■ COLOR AND DESIGN ■■■■

CHAPTER IV

COLOR

Without a mysterious rainbow, no pot of gold.



IRIS was the daughter of the sky, who pacified the Storm King, her father, when he grew too wild. Then he, sorry for his part in disturbing the earth people, would send Iris down to earth on a rainbow bridge to tell the frightened earth folk that all was well. On the end of the rainbow the Storm King tied a pot of gold to hold the bridge in place. And when the rainbow returned to

the sky, the pot of gold was left behind. The iris flower was named after the rainbow Iris, because the flower is found in every color and is so sparkling and beautiful, like a gleaming wet rainbow.

Colors, forms, and sounds compose Nature's alphabet. The study of color is one of the most fascinating and inexhaustible of the many sciences and arts. In color, as in music, the first essential is to find the key.

What is color? Color is Light. Light contains within itself all the sun rays and, when Light is broken into individual rays, or wave lengths of light, a sensation is produced upon the retina of the eye which is called *color*. The eye responds to color as the ear responds to music.

Man is just realizing the fact that color is a powerful element in our daily lives. It has energy, vibration, and light, and

affects us whether we know it or not. Scientists are using color as a restorative and healing power, and experiments tend to show that the behavior of children is influenced by the shades which they wear. Colors create atmosphere. They stimulate, delight, cheer, or soothe, according to our chord of harmony in dress and surroundings. Their power is more subtle than words can express in obtaining a desired effect.

All colors are good, and each has its place in the great symphony of Nature, but Man must discover their harmony.

Like colors in a rainbow
 The human prism lives :
 From red to violet
 He radiates —
 And all the while
 He is just what he gives.

1. THE INTERPRETATION OF COLOR

If the Cut betoken Intellect and Talent, so does the Color betoken Temper and Heart.

— CARLYLE

a. Colors

Blue. — Blue is the cerulian color denoting the heavens. In symbolism it denotes the highest degree of pure spirituality and is the color of the chief vestment of many of the Saints and of the robe of the Virgin Mary.

Blue, therefore, is a color usually termed as innocent, quiet, and reserved. It expresses truth, calmness, and modesty. Men like sky-blue on women because it means to them the feminine quality of the “clinging-vine” type and brings out the protective side of a man’s nature.

Blue is probably the most used of all the colors, although some shades are unflattering. It reflects its complement, orange, over the complexion, causing the wearer to look more sallow. The light blonde (page 154) will find blue one of her best colors as it

will accentuate the color of her hair and eyes. Blue adds warmth and expression to brown eyes. Navy blue enhances the good points in the wearer's figure and complexion.

Brown. — Brown is a lifeless color and requires the aid of a bright color, such as red, yellow, or orange, to make it expressive. It is a much used color and is very lovely in the golden brown shades for warm brunettes as it enriches the appearance of the hair and eyes. The monochromatic use of brown expresses an individual refinement not secured by the same use of any other color, for brown has an affinity for its own shades.

Green. — Nature clothes herself in green for rest and peace. ("The earth's green livery.") Green is a relaxing color and satisfying to the eye. It signifies the realization of hopes and ideals, denotes generosity, and is referred to as the money color. Green is a combination of yellow, meaning happiness and gayety, and blue, meaning poise and coolness. It lends brilliancy to the complexion. Blue greens are more flattering than yellow greens for they force color in the cheeks, but they are difficult to combine with other colors.

Orange. — Orange is a combination of red and yellow, the warm primary colors, and is allied to the metal gold. It denotes magnificence, grandeur, pomp, and regal ceremony. It is a creative color, denoting ambition and pride, but it is a very aggressive color which is the reason it is often used in advertising. A feeling of kindliness and expansiveness is created by this color, so much so that it is called the spending color. Little of this color should be used in dress, as an over-use produces restlessness and mental irritation. Orange in the pastel shades is becoming to the blonde, while the dull orange and red-orange are preferable for brunettes (page 155). These shades blend with the yellowness of the skin and reflect a reddish tint.

Purple. — This color expresses dignity and formality and because of its high vibratory power fades from sight more quickly

than any other color. Its rich hue suggests royalty and stateliness. The Roman term, "born to the purple," is distinctive of royalty. The lighter shades of purple (as violet) are very pliable in combinations and represent indolence and luxury. It is a color expressive of truth. The deep blue-purple shades are symbolic of mourning and sadness.

Red. — The red rays move more slowly than those of any other color and, therefore, have a powerful reaction upon the nervous system. The softer shades of red, such as pink, combine the innocence of white and the energy of red to express love and daintiness. Red is an energetic and aggressive color and exercises a great hold on the passions. It is the symbol of the blood and of the sword. The precious stone, ruby, gets its name from its red color. Regardless of its bold appearance, red, of all the primary colors, gives the most pleasing effect to the complexion. Values of red, except intense shades, add color to the skin. Red lends a rosy glow to the skin that gives the appearance of health and vitality. There is no notable effect upon the eyes and hair, except that it adds sparkle to brown eyes and warmth to the hair. Too much red, however, is annoying because it irritates the senses. Therefore, red should be worn sparingly. The bluish reds are worn most effectively by blondes, while brunettes should restrict themselves to the more yellow-reds (page 155).

Yellow. — The yellow rays move more rapidly than those of any other color and express rest and peace, or sunshine and gayety. Yellow is a powerful mental stimulant and makes sunless places bright and healthy. Yellow casts its hue over the complexion, hair, and eyes. The person who has a clear, fresh-tinted complexion may, therefore, wear yellow to advantage. Orange-yellow is more becoming than the green-yellow and may be worn by the warm blonde but must be avoided by the cold blonde (page 154). Yellow adds beauty to the hair of the warm blonde and changes hazel eyes to a soft brown. Those having

a sallow skin may wear a yellow-pink, as the pink tone decreases the yellow in the complexion.

b. Neutrals

Black and white are not considered colors. They are called neutrals. Gray is a combination of black and white and so is also considered a neutral. Black, in pigments, is a mixture of the primary colors, — red, blue, and yellow; white, on the other hand, is a combination of all the rays of color in perfect proportion.

Black. — Because black is not a color but rather the privation of color, it suggests somberness, coldness, and mystery. That is probably why black is used so extensively to express mourning. Because of its dignity and practicability, however, it has always been very popular. When combined with rich textures and an original touch of some color, it becomes most effective. Black has a tendency to take away color. It tends to decrease the size of the wearer because it absorbs light and calls less attention to the figure. Black emphasizes age, but is especially chic (shêk — artistic cleverness) for those having plenty of color in skin, hair, and eyes; black in itself, however, is lifeless.

White. — White is the symbol of innocence and purity. It readily throws off the light rays, thus producing a cooling effect. Most people can wear white, as it enhances the tone of the complexion, hair, and eyes, especially in the off-white shades of ivory, cream, and flesh tints. White is much used because of its daintiness and cleanliness of appearance. In spite of its good qualities, however, white increases apparent size and must therefore be used sparingly for the stout figure. It is well to remember that although white subtracts age it increases size.

Gray. — Gray is distinctive, quiet, and very retiring. It denotes refinement and modesty. Too much gray may become monotonous and inexpressive, but if worn sparingly, tends to neu-

tralize the natural coloring of the wearer. Gray-blue is best for blonds while yellow-gray may be worn effectively by brunettes. Like black, gray has a tendency to decrease the apparent size of the figure.

2. THE LAW OF THE DRESSING SCHEME

The light that lies in a woman's eyes. . . .

Because the color you wear may be the greatest single aid or hindrance to your beauty, color in dress should be considered from two points of view: first, the harmonious combination of colors in the costume; second, the becomingness of the colors of the costume in intensifying the vivid charm of the eyes, hair, and flesh tints. Each is as important as the other. Ignorance of the first viewpoint always results in a painful and harsh effect to the sensitive public while disregard of the second means a loss to the personal beauty of the wearer.

The person who possesses style never violates the law of color as dictated by her eyes no matter how Fashion shrieks her preference for certain shades. Fashion is fickle, but the eyes are constant. Two laws prove this: first, one sees people through the eyes; second, the eyes are unchanging while the hair and skin, the next determining factors, may be altered. Cosmetics vary the skin coloring, and bleaches and dyes change woman's "crowning glory." But who can change the eyes? Time may change their color slightly but the cosmetic art is powerless, so the eyes are the starting point in personalizing color.

The foundation color in the dressing scheme is determined by the pigment which the Great Painter has laid in a woman's eyes, supplemented by the skin and hair coloring that harmonizes and completes the picture. The color may be varied, blended, and shaded as long as the three laws are observed. Almost everyone has a strong instinctive love of color and only needs to learn how

to apply it understandingly. Color harmony lends distinction to the simplest costume, but too much intense color is always to be avoided as it leaves the face colorless. Light values, weak in intensity, have the opposite effect of adding color to the face. Therefore, tints should be used as the background color.

In dress the most pleasing color arrangements are those which combine harmony with a note of contrast. This may be a change of hue, value, or chroma. No colors are wrong, rather the combination of colors.

3. CHOOSE THE COLOR SCHEME THAT BLENDS WITH YOUR EYES

Sound the correct color notes and observe the effect of the vibration. Colors should never be chosen to drown out the personality of the wearer, but should blend in harmony with the wearer's attractiveness. Much care should be taken to select colors appropriate to the occasion, and the light under which they are to be worn should be carefully considered. Colors that are mysteriously soft should be worn next to the face. Strength is obtained by use of mass and repetition of color. Quiet receding shades are appropriate to elderly women, while youth has almost an unlimited choice.

Neutral and bright colors emphasize age, size, features, and complexion, and should be selected accordingly. Light colors express gayety and daintiness, while dark ones give dignity and force. It must, however, be remembered that intense colors reflect their complement upon the complexion. When complementary colors are placed together, they intensify each other in a startling manner. Imagine, then, the great possibilities of intensifying either the right or the wrong colors in the eyes, hair, and skin by bringing into action the complementary colors in clothes!

The mystery of the becomingness of colors is explained by applying this simple law of complements, for when complemen-

tary colors intensify a girl's coloring, she is particularly brilliant and has an arresting charm. Everyone is an individual type and must study carefully her own color scheme. A word to the wise is sufficient.

The types may be generally classified as *blonde*, *brunette*, *Titian*, and *gray*.

Demi-Blonde or Medium Blonde. — Pastel shades are correct for the demi-blonde and her best color is green.

- Black : Good in transparent fabrics, and when combined with white.
- Blue : Blue is good in all shades except a brilliant blue, and dull blue is most effective.
- Brown : Ecru, sand, and faint dull browns bring out the tints in the hair.
- Gray : Light grays may be worn.
- Green : All shades of green may be worn, but blue-green is the best.
- Pink : Rose-pink and flesh are very good.
- Purple : Darkest shades are best. Very clear complexions may wear lavender.
- Red : Good in rose, red, and dull shades.
- White : Blue-white and ivory are best.
- Yellow : Pinkish-yellow is good.

Pure Blonde. — Colors of medium value may be worn by the pure blonde, and dark blues and greens are her best colors.

- Black : Good in all fabrics, but especially striking in fabrics with a glossy surface.
- Blue : Blues of all shades are good.
- Brown : Soft golden browns enhance the color of the hair.
- Gray : Neutral shades and blue-grays are good.
- Green : Only dull greens may be worn.
- Pink : Rose-pink is appropriate.
- Purple : Heliotrope, wisteria, and blue-violet are very good.
- Red : Dark reds are good.
- White : Ivory whites are best.
- Yellow : Dull orange-yellow may be worn.

Pale Brunette. — The light or dark colors may be worn by the pale brunette. Those harmonizing with her hair and eyes are the best.

- Black : May be worn in transparent fabrics and velvet.
- Blue : Green-blues are best.
- Brown : Dull browns are very good.
- Gray : All shades are good, especially pearl and blue-gray.
- Green : Good in light tones.
- Pink : Yellow-pinks are becoming.
- Purple : Orchid is the best shade of purple.
- Red : Orange-reds and henna are especially good.
- White : Ivory whites are good.
- Yellow : May be used in grayed tones.

Pure Brunette. — Pure colors may be worn by the pure brunette. Red is her best color.

- Black : Good in velvet or sheen fabrics when touched with a bright color.
- Blue : Those having green or violet tones are becoming.
- Brown : Good in all shades, especially golden shades.
- Gray : Only good in dark gray shadow.
- Green : Medium or dark tones of brown and yellow green are good.
- Pink : Only yellow-pink may be worn.
- Purple : A color to avoid.
- Red : Deep rich yellow-red, russet, or maroon are very effective.
- Yellow : Orange tints and deep cream are good.

Titian. — This type is named from Titian, the great painter, who loved to paint red-haired women. Shades of brown matching the hair are the Titian beauty's safest color, and green in dull shades is good. Only neutral tones should be worn.

- Black : Good if relieved with a touch of color.
- Blue : Good in all warm shades.
- Brown : Good in all tones, especially orange and golden brown.
- Gray : Only brown-grays may be effectively worn.

- Green : Good in all shades having a predominance of blue.
Pink : Shell and flesh are good.
Purple : With a clear complexion, lavender or violet is good.
Red : To be avoided.
Yellow : In transparent fabric, dull orange-yellow is good for evening wear, and deep cream is very good.

Gray. — The gray-haired type looks best in pale shades and the hair must be the key color.

- Black : Good in all fabrics, especially when relieved with a touch of some soft pastel shade.
Blue : Navy and powder blues are especially good.
Brown : All right, if used sparingly.
Gray : Warm grays in the darker shades are good.
Green : Very dark or very light shades and yellow greens may be worn.
Orange : May be worn in delicate shades of light red-orange.
Pink : Old rose, wild rose, and pale tones are good.
Purple : Darkest shades are good.
Red : May be worn in maroon and wine shades.
White : Especially good in off shades.

CHAPTER V

DESIGN

Art needs no spur besides itself.

— VICTOR HUGO



A GOOD design is, primarily, pleasing to the eye, and has one main center of interest. There are sometimes lesser centers of interest, and the farther apart these are the looser the construction of the design appears and, therefore, the larger the whole effect may be. In order to be well-dressed, we must know the whys and wherefores of design, learning how we can make or spoil

the effect of the figure by clothes. Good designs do not just happen. They demand careful study.

Decorative designs should follow the structural lines of the figure. Give emphasis where it is required and let the design or trimming move upward toward the left shoulder. Decorations often constitute a pitfall for the untrained girl, who must remember that ornaments should have a definite need or the art quality is lost, for art begins in need. Simplicity is the keynote of beauty because of the omission of the unnecessary. It is better to use an uneven number of any decoration, because the eye resents evenness. All decorations must belong to the garment and seem a part of it. The costume, therefore, should be so designed as to produce a well-organized and uniform effect without over-emphasizing any part of the figure. The face should

always be the center of interest as it is the most prominent expression of personality.

1. ELEMENTS OF DESIGN

In a good design we aspire to achieve balance, harmony, and rhythm. Their elements are the line, mass, texture, and color. Line is a skeleton or basic foundation sketched to direct the eye vertically or horizontally, and lines that are repeated, emphasize and produce a feeling of rhythm. The old Greek law of avoiding the halfway mark in all design should be applied, the unequal division of spaces being more interesting than the equal division. Proportion is produced by the relation of parts of the object to each other.

A good design is not divided in the middle, nor are the minor divisions of monotonous proportions. The heaviest part of a design is not placed at the bottom, lest it appear to be weighted down by itself, nor is it placed at the top, for there it will seem top heavy. A good design, whether it be in a picture, in a garment, or in the human figure, is not extreme in any of its measurements, and has as high value as fabric or workmanship.

Balance is a physical law and is produced by one of two ways: symmetrical or occult. Symmetrical is the equalization of color, shape, and size from either side of a midline (Figure 197-1). Occult is the unequalization of color, shape, and size from either side of the midline. The latter type of balance is more difficult to produce but is usually more effective.

If there is any deformity in the figure, it can be hidden and neutralized by well-chosen clothes, and with a wise distribution of lines. Good points can be made more effective by carefully and wisely emphasizing them and attracting the attention away from less pleasing ones. The contrast of color, size, and shape produces emphasis.

The eye is the most easily deceived of the senses, this fact being

especially true in the illusion of lines. For example, unbroken vertical lines suggest height and slenderness (2). Trimming which flares or drops itself at the top or bottom makes the individual seem taller. Trimming which cuts the top or bottom such as yokes, bands, and accented hems makes the individual appear broader and shorter.

When the eye is carried up by a long rolling collar, the waist appears to be longer.

When the eye is carried toward the center of a line, as in pointed collars at the neck, the waist appears to be shorter.

A narrow curved belt adds to the effect of height and makes the width appear less (3).

The wider the horizontal belt, tucks, bands, or flounces are, the shorter and broader the person appears (3).

A broken line always appears shorter than an unbroken line. The more prominent the break, as in the case of a wide belt, the shorter the line seems.

Emphasizing the outline makes the figure seem broader and shorter; emphasizing the center makes it appear taller and more slender (Figure 198, 1).

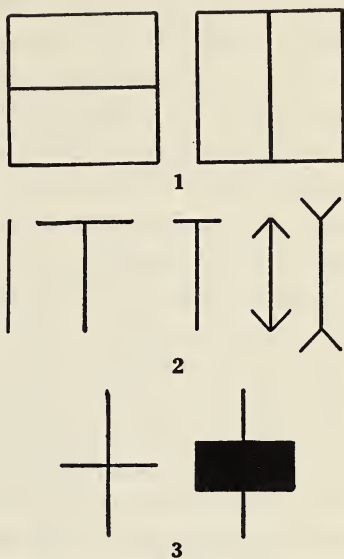


FIGURE 197

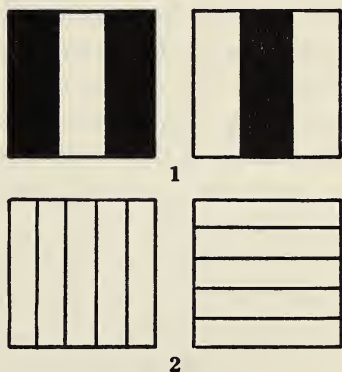


FIGURE 198

Width decreases apparent height.

In design, squares and triangles add thickness; round outlines broaden the thin figure; oblong outlines slenderize and add dignity, although they overshadow personality; lines that follow the contour of the figure produce feminineness. The silhouette outline gives the first impression which may be either good or poor.

In design there should be repetition. A repetition of a form equals rhythm and emphasizes that form, which is good; but if there is an over-emphasis, it decreases the value of the original form and its benefit is lost (2). The most common fault in designing garments is that emphasis is placed on many things instead of one or two. Suitable straight lines are attractive and add strength, while flattering curves add grace and beauty. The effect of lines may be emphasized by a repetition of the same kind of lines, or by a complete contrast.

Design has two aims in the selection and arrangement of fabric, these being harmony and beauty. Designs are classed as structural and decorative. The structural deals only with the basic construction, while the decorative adds ornamentation and makes the structural pleasing to the eye. The purpose of the former is to create and add strength, so that the latter will have a right to existence. By tracing a silhouette from a six-inch kodak picture taken of an individual in a bathing suit, it is simple to work out pleasing lines for different designs.

Obedience to the following five simple rules of appraising a design will serve to guard against awkwardness; the head length should never be repeated in yokes or waist trimming; sleeves should never be trimmed above or just below the elbow; the length and width of belts and girdles should be given careful consideration; the Greek law of proportion avoiding the halfway line must be applied in yokes, ruffles, tunics, and flares; the garment should be suited to the wearer and occasion. Flounces, ruffles, and flares should be added below the hipline.

2. FIGURE AND POSTURE

Grace was in all her steps.

— MILTON

And ne'er did Grecian chisel trace
A Nymph, a Naiad, or a Grace,
Of finer form, or lovelier face!

— SCOTT, *The Lady of the Lake*

To stand correctly is the first essential of a graceful figure, and nothing is more necessary to good health and good looks than good posture. The feet are the solid foundation for the whole anatomy. They should therefore be given the best of care, with special attention paid to wearing properly fitting shoes and stockings, which are large enough not to restrict the circulation. Uncomfortable feet make unhappy people and cause them to feel old and to look old. Watching one's feet is just as important as watching one's step.

The shoe should be long enough and wide enough to permit the foot to lie in a perfectly natural position. Round-toed shoes follow the lines of the foot and should be worn for comfort. The shoe should be a little longer than the foot, so that when standing or walking, the toes will not be pushed against the end of the shoe. It is important to have the bend of the foot come at the bend of the shoe. Extremely high heels throw the figure out of its normal line and the result is an ugly forced walk and poor carriage. Heels of medium height do not affect the normal body position and aid in acquiring a graceful walk. A foot of comfort means miles of happiness. Great care should be taken to keep the heels of your shoes in good condition, for you do not wish to have it said that you are literally "run down at the heels."

Hose that are too short in the feet will cause as much foot trouble as shoes that are too short. Hose should be fitted so that they extend $\frac{1}{2}$ inch beyond the toes.

American women are noted as the possessors of poor postures. Is it because they do not carry out these simple "foot notes"? Stand with the weight on the balls of the feet and as tall as possible without rising on the toes. This position naturally keeps the head up, chest high, and the chin and abdomen in (waist muscles flat). The feet should be slightly apart with one foot extended a little in advance of the other. The feet should be parallel, not turned in or out, in walking. Daily practice and use will develop for any normal figure an erect posture equal to that of the moccasined Indians.

Is your walk in keeping with your personality? If not, there lies the reason why your clothes look as though they did not belong to you. Gracefulness is skill of movement and that skill is obtained by constant attention to your walking stride. Practice walking for a "graceful carriage" by taking the "as tall as possible" position. Walk with your best foot forward.

Emerson said, "Health is the first wealth." Increase your breathing by gradually inhaling a little more deeply than natural, for oxygen acts as a tonic to the body. Practice inhaling and exhaling until the deep breaths seem to spread the hips. Trying to spread the hips by deep breathing causes the muscles of the body to relax. Inhale deeply while taking five steps, and hold the breath as you take five more steps. Again take five steps and exhale gradually while doing so. All the air possible should be exhaled.

A little intelligent practice, determination, and enthusiasm will develop the lungs, diaphragm, muscles, and body. "Health makes beauty" and perfect health expresses naturalness. Let relaxation and self-confidence be your watchword. Nature plays no favorites when her laws are rightly practiced; it is the violator who must pay the penalty.

In sitting, always turn one knee slightly toward the seat. Let that leg support the body as you are seated. Grace is obtained

by keeping one foot slightly in front of the other. The hands should rest perfectly relaxed with palms up in the lap. In rising, let the foot nearest the seat take the weight of the body. This gives you a graceful appearance as you rise from the seat. In stooping and reaching to the floor, extend one foot slightly in front of the other, bend both knees and with the hand opposite the extended foot, pick up the article.

No matter how complete and well suited the individual's wardrobe may be, the effect is lost if she does not possess a graceful figure blooming with health to add charm and distinction to her personality. Since health and beauty are inseparable, practice daily to improve yourself. If you are overweight and wish to reduce, do so gradually so that your system becomes accustomed to the change. Follow a balanced diet composed of the right amount and kind of food plus regular exercises, and reducing will follow as a matter of course.

3. DRESSING THE INDIVIDUAL TYPES

Chins. — Pointed chins most often require the heart or U-shaped neck line with a touch of horizontal decoration on the waist.

Oval chins generally require the pointed or heart-shaped neck line with the neck line cut high. Soft bows or ties are very effective.

Round chins generally require the slanting, square, tapering, or V-shaped neck lines. Long, medium-width collars are good.

Square chins as a general rule require the V- or the U-shaped neck line. Use small collars and long ties.

Necks. — Long necks need rolling collars, round neck lines, fluffy collars or fichus. Collars should fit high in the back. A shallow neck line should always be used on this type.

Short necks require flat collars, especially collars that carry the line of the neck opening down the dress front in a long, slender

line. Collars that are cut long and narrow slenderize the neck line and collarless dresses and V-necks are becoming to this type because they are the most slenderizing.

Shoulders. — Broad shoulders require raglan sleeves, set-in sleeves high on the shoulder, dropped shoulder yokes, lengthwise plaits, folds, or tucks from the shoulders to the waist which tend to slenderize the shoulders. These effects must be close to the neck and narrow in width.

Round shoulders most often require set-in sleeves. Shoulder seams should be $\frac{1}{2}$ inch back of the normal shoulder line. Collars which appear to straighten the back, and waists which are full and loose, are best, as a general rule.

Narrow shoulders most often require capes, broad collars, ruffles, berthas, fichus, and scarfs, all of which have a tendency to broaden the shoulders. Groups of tucks, bands, or ruffles placed horizontally give the appearance of width as do also square designs. Long shoulder seams, yokes, and collars that carry the eye to the waist should be worn by this type. The peasant sleeve shirred at the armseye adds width.

Sloping shoulders require round yokes, fluffy collars, and capes to correct the sloping shoulders. Long, circular capes are quite good for this type.

Arms. — Long arms require sleeves that are almost straight, but a well-proportioned, two-piece decorated sleeve may be worn.

Short arms require set-in sleeves of continuous line and simple design. The short and fat arm requires soft clinging fabric with set-in sleeves that break the shoulder seams.

Fleshy arms require set-in sleeves, curved on the underarm seam, with allowance if the upper arm is large.

Hands. — Large hands require a frill at the wrist; tight cuffs must be avoided.

Bust. — Flat-busted figures require ruffles, fichus, jabots, full, short collars, or fullness over the chest by means of tucking or

shirring the fabric into the shoulder seams or natural waistline.

The full-busted figure requires long, narrow collars and indefinite waistlines. Trimmings in the center front and center back may be worn. Waists cut in several pieces, panels, or vests break the line. Building out at the waist or hips, or yokes extending below the waistline will make the bust appear smaller.

Waists. — If large, V-neck openings should extend to the waist. If small, wide and narrow girdles, or belts, and other waist decorations may be used. Contrasting colors used around the waist are good.

Swaybacks. — Jackets, capebacks, boleros, or judicious blousing will off-set this defect.

Hips. — If hips are large, narrow belts and neck trimming help slenderize, as does also the one-piece dress. Blousing at the waistline or a medium amount of fullness at the bottom of the skirt will tend to make the hips appear smaller. Long skirts, as well as vertical lines, are sure to give a slenderizing effect. The V-neck opening should extend to the hip line.

Tightly wrapped skirts should be avoided. Straight up and down lines always give a false impression of slimness. Flounces and ruffles are good for slender figures and tall figures can wear fuller, shorter skirts than can the shorter figure. Many gores have a tendency to slenderize large hips, while the two piece skirt gives a broad effect to the smaller hips.

4. FABRICS

Weave the warp, and weave the woof.

Fabric designs reveal much of the history and atmosphere of each century, and seem always to have drawn their inspiration from the East.

Ornamental fabrics were first produced in Europe in 500 A.D.

The designs consisted at first of circles or squares. Later on, these circles or squares were sometimes filled with Persian or Syrian floral designs. For centuries these circles and squares were used in stained glass designs.

About 400 to 600 A.D. broken circles came into the designs, the upper and lower segments spreading out to form bands. Circles continued until the 12th century. The Saracenic Hexagon, geometrically arranged, was also used and up until the 13th century a formal arrangement was often followed consisting of balanced groupings of birds, beasts, or men, placed face to face or back to back.

In the 16th and 17th centuries three distinct types of designs were seen. The Renaissance gave way to the Egyptian, Roman, and Greek motifs. The second, or Oriental Renaissance, was really Portuguese, Persian design or the spirit of the Renaissance influencing the East through commercialism. The third, or European, flora was developed about 1650 during the reign of Louis XIV. It was then that the ferns and flora of the royal gardens came into use as motifs and artists held high positions.

Much less symmetry of balance was found in the decorative motifs of fabrics during the reign of Louis XV.

Under Louis XVI the designers followed innumerable paths, under the impulse of capricious fashions.

Queen Marie Antoinette's reign introduced entwined ribbons, garlands and ornaments, but the Revolution brought in simpler fabrics and designs.

Today, "All wool and a yard wide" has lost its appeal. Weight and length of wear are no longer buying criterions. Beauty is now the acid test and all else is secondary. Is not this the true mark of culture? And is it not just as practical, if culture attains its ends, as when materialism accomplishes its clumsier forms?

What is more crushing to a lady striving for a pretty effect than to have an observer say, "It's practical" or "It will certainly wear well." Yet one may make these remarks to a man without offense, because men are much more practical than women.

The light that lies in Fashion's eyes seems to be gleaming for new fabrics and a living rainbow. Good taste, however, is never characterized by gaudy display. When women as a group let real beauty, quality, and suitability of fabrics determine their selection of fabrics, a more stable price will result. Novelty goods make fabrics higher because of their designing and the risk taken in selling them. There is no relation between quality and price. Brands vary from year to year. The true value of fabric depends on endurance and style.

The knowledge of the properties, uses, weaves, and colors of the five fibers — cotton, linen, rayon, silk, and wool — for clothing should be familiar to every woman, as it will help her to solve the problem of getting the best return for her money. The Textile Department of the U. S. Government is carrying on a movement to have the count of thread, kind and amount of fibers, and tensile strength stamped in the selvedge of all fabrics to aid the buyer in making her choice. But the buyer must also have a knowledge of the beauty, style, quality, becomingness, durability, and comfort of the various weaves.

Fabrics, rather than design and color, are often the test of clothes suited to the occasion. They control the style chosen for the garment. There are two textile designs in fabric — structural and surface. Structural design is made by the combination of different kinds of yarns. Surface design is made by adding the design after the cloth is made. Fabric with a surface design is called printed material.

Crêpe of the softest kind was a favorite fabric with the women of Greece and Rome. Plain colors were also preferred and this is unquestionably the best practice. There is a dignity and

grace in the soft folds of a plain fabric that cannot be equaled by the most beautiful Italian brocades.

Lace is one of the most beautiful fabrics and capable of the greatest number of uses.

Since texture is the effect of the weave upon the appearance of the fabric, color has a great deal to do with texture of fabric. Soft silks and silk crêpes or thin fabrics which fall in gentle curves and folds seemingly make colors appear softer. Hard, brilliant colors make wiry fabrics seem more harsh. Equal amounts of light and dark values should be avoided because they are monotonous.

The choice of fabric and the use of contrasting fabrics depend upon age, figure, complexion, climate, occasion, and cost. It is always well to remember that whatever its use, a fabric of conspicuous pattern is unbecoming and tiresome. Durable fabric will have a firm, strong weave, a good tensile strength, and the threads will be well balanced, the filling threads in proportion to the warp threads. Buy the kind of fabric which will fill the need and of a quality which will fit your purse.

a. Classification of Fabrics

Heavy. — A massive and masculine appearance characterizes these fabrics, and their roughness makes the skin of the wearer look finer. They blend colors because they reflect light and throw shadows and are therefore a good choice for slender people. Gathers, drapes, or other such fullness should not be used with these materials.

Lustrous and Dull. — Every fabric has a surface which is either lustrous or dull. The lustrous fabric emphasizes and exaggerates the lines, ages the wearer, and increases the apparent size because of its glaring appearance. It does not combine well with other colors and is difficult to wear. Dull fabrics are widely used since they are becoming to most types. They show

true color, bring out the curves of the figure, and do not emphasize size.

Medium. — These fabrics are most economical and satisfactory. They easily follow the line of the design although they need more intricate design to make them look important. Off shades should be used, as the primary colors become monotonous.

Pile and Brocades. — These fabrics absorb or reflect light, thus making the surface darker or lighter. They are associated with deep rich colors and have a heavy appearance. They emphasize lines; therefore, they should be used for gowns with simple lines and little decoration, and should only be worn by slender types because of their tendency to emphasize facial shadows.

Soft. — These fabrics are soft and pliable and are suitable for stout people.

Stiff. — These fabrics do not follow the contour of the body and often lend unbecoming lines to the design. They wrinkle easily. Because the fabrics are harsh, they are best in the soft pastel shades designed for tailored lines. Slender people can safely use these fabrics.

Thin or Transparent. — These fabrics look lighter because of their transparency. They make a graceful silhouette and soften angular lines by giving indistinct boundaries to the figure. Flowing lines add height. The more sheer the fabric the more fullness is necessary to give a pleasing effect. Good qualities of clinging fabrics are appropriate for elderly or stout people.

b. Explanation of Terms

Bast Fiber. — The long, strong fibers lying under the outer bark of certain plants, such as jute, flax, and hemp.

Batik. — A Javanese process, in which the pattern is painted on with wax before it is dyed. The portions waxed resist the color, and the wax is removed later.

Battening. — A method used in weaving to beat the filling threads close together.

Beetling. — Hammering the surface of cloth to increase the luster, especially used on cottons and linens.

Bias. — Diagonally across the material is called true bias, and at any diagonal is called garment bias.

Bleaching. — The five fibers are in the form of tubes and bleaching is the process of taking out the coloring within the tubes. The color may be partly or entirely removed.

Bleeding. — Occurs when the colors in dyed fabrics run.

Blinding. — The combining of different kinds of fibers and colors to produce a desired yarn.

Block Printing. — The stamping of designs by hand, one color at a time, with carved wooden blocks.

Boiled-Off Silk. — Silk which has been boiled to remove the natural gum or sericin.

Breaking. — The separation and crushing to loosen the bast fiber from the outer bark and woody tissue of the plant, such as flax, jute, and hemp.

Burling. — In the finishing process, the removal of burs, knots, etc., from the surface of cloth.

Burnt-Out Process. — Chemicals are used to burn out the fabric, in the process of making imitation Venetian needle-point lace.

Calendering. — A polish given to cloth by pressing with heavy rollers during the finishing process.

Carbonizing. — Acids used to remove vegetable matter in wool or woollen fabrics.

Carding. — The untangling and straightening of textile fibers.

Chemical Bath. — A chemical solution bath used to change fibers or cloth to give them a different permanent appearance. Chemical bleaches are likely to injure the fiber. There are four kinds used: full bleached, three-quarter bleached, silver or half bleached, quarter bleached.

- Cloth.* — A pliable fabric made by weaving, knitting, or felting.
- Combing.* — Used to straighten worsteds and cottons after the carding process to secure long fibers.
- Count of Cloth.* — The weight and fineness of cloth is determined by the number of warp and filling yarns in a square inch of fabric.
- Count of Yarn.* — The number of yards of yarn which can be spun from one pound of fiber.
- Cravenetting.* — The treating of fibers or fabrics with chemicals to make them waterproof. Such fabrics are used for raincoats.
- Crofting.* — A method of bleaching on grass by the rays of the sun.
- Cross Dyeing.* — The dyeing of two kinds of fibers, such as wool and cotton, using a dye which will color but one fiber.
- Cross, Gauze, and Leno Weaving.* — Where extra warp and filling threads are used in plain weaves. Example: curtains.
- Crosswise.* — Meaning from selvedge to selvedge or against the grain.
- Direct Printing.* — The process of stamping the color on the surface of the fabric.
- Discharge Process.* — The use of chemicals in the printing of a pattern on the surface of a dyed fabric, treating the color so that it is discharged or removed from the printed parts.
- Down Hair.* — The soft undergrowth of hair on animals.
- Drawing.* — The large, soft rope of fibers as it leaves the card or comb is pulled out into the desired size of yarn.
- Dressing.* — Substances used in the finishing of cloth to give stiffness, weight, or polish.
- Duplex Printing.* — The printing of a design on front and back of a fabric.
- Duplicate Printing.* — Printing done accurately on both sides of the fabric, imitating warp-dye fabric.
- Dyeing.* — The coloring of different fibers and fabrics by im-

mersing in a dye bath, so that the tubes of the fiber are filled with color. To attain a high color, the dye is made so strong that it adheres around the tubes as well as in them. Each fiber requires different methods and dyes.

Dynamiting, Weighting, or Loading. — The dipping of silk into a mineral solution to give it weight. When gum is boiled off, silk loses $\frac{1}{4}$ of its weight. Sugar of lead does not injure the fiber. Tin and iron which are used to-day weaken the fiber and make it crack or split, whether the silk is used or not. Moisture and sun affect weighted silk. Wool is weighted by adding flocks.

Fabric. — Cloth woven, knitted, or felted from fibers.

Felted, Filled, Shrunk, or Milled. — The treating of wool fabric to reduce it in width and length.

Felting. — Matted wool or a combination of fibers that has no warp or filling thread, compacted by rolling and pressing.

Fiber. — Any tough thread-like substance capable of being spun and woven, as cotton, linen, rayon, silk, and wool.

Filling or Woof. — The yarn that is carried across the warp in the weaving process.

Filling. — Substances such as powder, starch, or clay used in cheap cotton, linen, and silk to increase their weight and stiffness.

Fleece. — Loose wool, after being shorn from the sheep.

Floats. — The warp or filling threads that come on the surface in weaving.

Flocks. — The short fiber ends that are clipped off in the finishing process of wool fabrics.

Full-Fashioned. — Shaped pieces are knitted and then sewed to form a garment which holds its shape, such as better grades of knitted underwear and hosiery.

Gassing or Singeing. — The burning of the short fiber ends on yarn or cloth.

Ginning. — Separating cotton fibers from the seed.

Grass Bleaching. — This is the Irish process of bleaching the finest linens. After the linen has been scoured with soap and boiled in lime, it is spread on the grass for six or eight weeks to whiten.

Hackling. — A method used in the cleaning of flax after the breaking process.

In the Gray. — Cloth before it is bleached or colored.

Knitting. — The using of one thread, attaching one loop into the other. The yarn used is soft and has few twists in it. The two kinds of knitting are plain and ribbed.

Lappet Weave. — Small designs embroidered on the surface of a fabric.

Lengthwise. — Meaning with the warp thread and selvedge, or with the grain.

Line. — The long, straight flax fibers.

Lint. — Cotton fibers after ginning.

Linters. — Short hairs which adhere to the cotton seeds after the first ginning.

Mangling. — Ironing cloth or clothes between rollers.

Mercerizing. — Cotton treated with caustic acid causing it to be more lustrous and take dye better. Done correctly, it strengthens the fiber.

Mill Waste. — The by-products after the first milling.

Mingo. — The lowest class of manufactured wool.

Mordant. — A chemical used to cause dye to adhere better to the fiber.

Napping or Teaseling. — Where the surface is roughed-up by raising the ends of the fiber.

Neps. — Small knots in cotton caused by irregular growth or poor ginning.

Noils. — The short and broken fibers of spun silk and wool.

Pelt. — The skin of sheep before wool is removed.

Picking. — Putting in the filling threads through the warp thread in weaving.

Pile Weave. — Consists of a mass of threads standing upright and the surface cut off even.

Printing. — Applying colors by machine to certain portions of the cloth. These colors are not so fast as dyed colors.

Pulled Wool. — Wool removed from pelts of dead sheep by chemicals.

Pure Dye. — Dyed silks containing no weighting.

Raw Material. — Textile fibers which have not been treated in any way.

Reclaimed Wool or Remanufactured Wool. — Wool fibers which have been worked over from cast-off clothing. There are three kinds: *shoddy* (the name for wool which has been used once, from unfelted clothing such as blankets, stockings, sweaters); *mingo* (from felted fabric such as broadcloth); *extract* (from mixed cotton and wool fabrics from which the cotton is removed by chemicals).

Reeling. — The winding off of the fiber from the silk cocoon.

Retting. — The rotting of the woody fiber in order to separate the flax from it.

Rippling. — Removing of seeds, leaves, and roots from the flax plant.

Roughing. — The hackling or coarse combing of flax.

Schreinerizing. — A beautiful luster given to the surface of cloth by etched rollers, which disappears in laundering. Example: *moiré* cloth.

Scouring. — The washing of fabrics after leaving the loom. It is usually done before dyeing.

Scutching. — The removal of woody particles adhering to flax after the breaking process.

Seconds. — Fabrics that contain imperfections after weaving.

Selvedge. — The finished edge of the cloth formed by the filling threads turning back through the warp.

Setting of Colors. — Making colors fast or permanent.

Sized. — A substance put into fabrics to make them more beautiful and stronger, and to conceal defects. Some treatments will make one material resemble another. Irish moss gives stiffness to wool, oil and glycerine gives softness and elasticity. Mucilage and gum give stiffness and gloss. Waxed paraffins give high luster. Starch gives weight and stiffness. China clay gives weight and firmness. Antiseptics are used to prevent starch and fat from moulding.

Silk Bleaching. — This is done with hydrogen peroxide or sulphur, after the gum has been washed off with an alkali.

Sliver. — Yarn in the manufacturing process when drawn into a rope-like stage.

Sorts. — Division of the pelt into different grades of wool.

Souple Silk. — Silk from which a part of the gum has been removed.

Spinnerets. — Two small holes in the head of the silkworm through which the silk fiber is ejected.

Spun or Waste Silk. — Waste silk which cannot be reeled, but must be spun into yarn.

Staple. — A term pertaining to weaving.

Throwing. — Reeled silk doubled and twisted into yarn.

Tie Dyeing. — Strings tied around parts of the fabric to keep the cloth from taking the dye.

Tops. — Combed wool in large soft balls.

Trom. — Coarse silk thread used for filling.

Two-Ply. — Two strands of yarn twisted together.

Virgin Wool. — Wool sheared from live sheep and which has never been manufactured.

Warp. — Threads running lengthwise of the piece.

Weaves. — Two sets of parallel threads called warp and woof or filling threads running at right angles and interlacing.

Woof, Weft, Peeks, or Filling. — Threads that are carried across the warp in weaving, and are generally inferior and lighter than the warp threads.

Wool Bleaching. — Is generally done by sulphurous acid or sulphur dioxide gas. This does not remove the clothing substances in the fiber but changes the color to white. When soaps are used, the natural color returns.

Woolens. — Fabrics made from wool fibers which are short, large, and uneven and which are twisted into threads and have not been combed.

Worsted. — Fabrics made from long, fine, even, harsh wool fibers which have been combed parallel and twisted into yarn.

c. Cotton

'Way down South in the land of cotton.

Cotton is a vegetable fiber which grows around the seeds of the cotton plant. The plants are annual shrubs which grow from the seed, and range from three to four feet in height, with picturesque flowers somewhat similar to hollyhock blossoms. The first day the flower opens it is a creamy white color, and the second day it turns to a bright pink, then dries up. Then the pod, called a boll, develops. This boll has five separate divisions which contain the fiber and seed. A few days before the boll bursts open it becomes speckled with small purple dots. The plant begins to bloom when it is ten to twelve inches in height, and a single cotton plant will contain open bolls near the bottom and blooms at the top. This necessitates picking over the field several times during the season. The average field is small, due to the intense cultivation required. The clean, fluffy, cotton fiber, or staple, as it is called is white in color with a






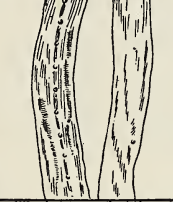



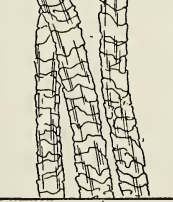
SOURCE		MICROSCOPIC	WHERE FOUND
Vegetable Fibers	Cotton 		Southern U.S. Egypt India Russia South America China
	Flax 		Belgium Ireland Russia Asia Poland France Netherlands
	Rayon 		United States England Germany Italy France Belgium Switzerland
Animal Fibers	Silk 		Japan China Italy France India
Fibers	Wool 		Australia New Zealand South America United States Europe Africa Uruguay

Table of Textiles

cream tint and varies from one to one and one half inches in length.

India is thought to have been the first country to produce cotton cloth. In 445 B.C. Herodotus spoke of the "cotton tree" of India, which, instead of fruit, bore a fine quality of wool. In old engravings the "cotton tree" is represented as having sheep's heads on the ends of its branches. The word "cotton" is derived from the Arabic "qutun."

With the invention of the cotton gin by Eli Whitney, in 1792, the cotton industry became tremendously important to the United States. The best cotton, which is grown on islands off the coast of Georgia and Florida, is known as the sea island cotton. This is used to make high grades of the fabric. Uses are found for all parts of the cotton. It is called "the fiber of everyday life" because of its wide range in clothing and household uses. Cotton may be woven into strong as well as sheer fabrics, according to the twist of the fiber. The finer qualities are made from the long staple.

Cotton may be treated to resemble linen, wool, or silk. Starches, clays, and gums are used in twisting cotton to give it an attractive appearance, while sizings are used to cover up a flimsy weave. Mercerized cotton is made by treating cotton a few minutes under tension, with a strong alkali. This causes the fiber to swell to a rounded form and removes most of the twist, giving the cotton a luster. Mercerized cotton has many of the properties of linen and unites more readily with dyes than common cotton. The plain cotton fiber does not dye to advantage because the colors fade in the light and in laundering. High-grade cotton materials that retain their color are somewhat expensive because of the necessity of careful and expensive processes of dyeing.

Cotton absorbs and gives up moisture slowly and this is an objection against its use for undergarments. Because of the

short ends that protrude beyond the surface of the fabric, it collects dirt more readily than any other cloth. Since cotton is the cheapest fiber, it is not adulterated by other fibers. Sizing is used to make poor grades of cotton appear as better grades.

Manufacturing Processes. — The process of cotton manufacturing includes ginning, baling, drawing, twisting, winding, weaving, singeing, bleaching, dyeing, printing, mercerizing, and dressing (pages 169–176). All these are necessary to the finished product which the housewife buys across the counter.

Tests for Cotton:

Breaking. — The cotton thread breaks quickly and the end curls up and looks dull, short, and fuzzy.

Burning. — Cotton burns quickly with a flash; lingers, smolders, and all but goes out and gives off an odor like that of burnt wood or paper. It leaves a small amount of gray ash.

Color. — A drop of nitric acid will not change the color of cotton.

Feel. — When rubbed between the fingers, it feels somewhat warm and shows the weave clearly.

Ink. — A drop of ink remains on the surface awhile and spreads unevenly when it is absorbed.

Lye Test. — Make a solution of one tablespoon of lye plus one pint of water boiled for ten minutes in a granite utensil. Cotton will remain on top of the solution, and is unaffected by the lye.

Microscopic. — The fiber appears like spirally-twisted bands with thickened edges (page 177).

Tearing. — Cotton tears easily and the sound will be dull.

Distinguishing Cotton from Other Fibers:

Lye Test. — Cotton from Wool — Use the lye test; wool dissolves and cotton is unaffected.

Lye Test. — Cotton from Silk — Use the lye test; silk dissolves and cotton is unaffected.

Oil Test. — Cotton from Linen — Pour a drop of oil on the surface of a boiled-out sample; linen looks transparent and cotton is unchanged as to transparency.

d. Linen

Dressed in linen white as milk.

— ROBERT OF BRUNNE

Linen is the oldest fabric in history, for the culture of flax goes back beyond Biblical times, being known in 2600 B.C. The name of linen is derived from the Latin word “linum,” the name given to the flax plant. The oldest linen ever found was discovered in the ruins of the homes of the ancient Swiss lake dwellers, who lived in the Stone Age many thousands of years ago. The ancient Egyptians, the Chaldeans, and Babylonians all used linen, of almost the same quality as the modern linen.

In the Old Testament Pharaoh is said to have arrayed Joseph “in vestures of fine linen,” and in Exodus there is this allusion — “for the barley was in the ear and the flax was belled.”

Linen is a vegetable fiber obtained from the inside stem of the flax plant. The plants are raised in large fields very much as wheat is grown and have a bright blue or pink flower. The flax stalk is pulled up by the roots by hand in order to avoid breaking the fibers. The linen fiber averages around eighteen inches in length and may be made into fine or heavy fabrics. The fiber is heavy, strong, non-elastic, and is a natural gray or brown in color. It is expensive because of the long process necessary to produce the fiber and weave it into cloth.

Linen does not bleach readily but retains its snowy whiteness after it is bleached. This process determines the grade of linen, the unbleached linens being the stronger. Bluening is used to whiten linens because blue tends to neutralize its complement, orange, and produce the effect of whiteness. Linen is very dur-

able because of its tough fiber and the ease with which it is laundered although the fiber may be weakened by hot, strong alkalies, and mildews easily. Linen made from the round, twisted thread is better than that made from the flat threads. Linen does not absorb or hold stains as other fibers do and is therefore in demand for table use. It is valuable for surgical use because of sterilization. Linen is hard to dye and is easily faded. It absorbs and gives up moisture readily and is coolest of all fabrics. It requires less finishing after weaving than any other fiber.

Ireland is the heart of the linen manufacturing industry, but Belgium produces the highest quality. The United States does not raise much flax because of the necessity of hand labor.

Manufacturing Processes. — The manufacture of linen is a lengthy and diversified process which includes cleaning, sorting, drawing, twisting, winding, weaving, bleaching, dyeing, dressing, and beetling (pages 169–176).

Tests for Linen:

Breaking. — The thread snaps and the straight ends are noticeably uneven and hard.

Burning. — Linen burns quickly with a yellow flame that is hard to put out. There is an odor like that of burning paper and a light, feathery ash is left.

Color. — Several drops of nitric acid on linen has no effect upon the coloring.

Feel. — Linen feels cool, smooth, and crisp.

Ink. — Ink will pass into the surrounding fibers very rapidly and will leave a round spot with a regular outline.

Lye Test. — Make a solution of one tablespoon of lye plus one pint of water boiled ten minutes in a granite utensil. Linen floats on the liquid.

Microscopic. — The linen filament is straight, cylindrical, and has nodes or joints at irregular intervals (page 177).

Moisture. — Most linen contains considerable dressing ; therefore, if the moistened-finger test is used, a boiled-out sample should be used. It has the power of absorbing moisture.

Oil. — Oil on linen makes it transparent.

Tearing. — When tearing linen, the sound is dull.

e. Rayon

Miss Cellulose Cottonwood is making her fashion debut.

Rayon is the infant of the textile industry but has already caught up with its predecessors.

It is a chemically-made fiber which is produced from the fibers of cotton linters, spruce pulp, cornstalks, and peanut hulls. Most rayon is made from cotton linters and spruce. Cotton linters, or down, are the parts of inferior cotton remaining around the seed after the first ginning. "Spruce" means the fibrous pulp of any of the evergreens, comprising the pines, spruce, firs, hemlocks, tamaracks, and cypress.

Rayon was first made by the French scientist, Chardonnet, in 1884. He gave the fiber the name of "artificial silk." In 1924, the United States Government authorities and a number of manufacturers renamed it "rayon," as the fiber differed from silk both chemically and physically. The name "rayon" was chosen because it expressed a fabric which the sun rays could not change in color, and because the name is easy to say and remember.

There are two types of rayon : the *regenerated* cellulose, which has the same chemical properties in rayon as in the original form, and the *acetate* cellulose, which has entirely different properties from the original form. The latter is used more often, because of its superior luster and beauty.

The regenerated cellulose rayon is made by one of three chemical processes : First, the nitro-cellulose process, which was the

first method wherein cotton linters formed the basic foundation. It was given the trade name of "tubize." Second, the cuprammonium process, which also uses cotton linters and assumes the trade name of "bemberg." Third, the viscose process, which uses northern spruce wood pulp as the base. Rayon made by this process is called "viscose." Most of the rayon in the United States is made by this latter method.

In making rayon the cellulose is cooked in large steam vats. After it is cooked, the brown substance is washed and bleached. It is then run between heavy rollers and pressed into sheets similar, in appearance, to blotting paper. The sheets are soaked in caustic soda, which is also used in mercerizing cotton. The sheets are cut to bits and thoroughly mixed with carbon disulphide in a large mixer. The mixture becomes an orange-colored dough, which is thinned with more caustic soda. It is allowed to age and is then filtered. The sirupy mixture is forced through minute holes in a large plate which is kept in an acid bath. When the rayon mixture comes in contact with the acid, it immediately hardens into a thick jelly. The jelly-like filaments are drawn away before they have a chance to run together. The filaments are made into threads which are completely hardened. The hardened threads are not twisted but lie parallel as they are woven into fabrics.

The acetate cellulose rayon in the chemical process changes many times, so that the cellulose is entirely different from the regenerated cellulose rayons.

Rayon is a smooth fabric, which is comfortable to wear. It does not cling, perspiration does not injure it, and it does not turn yellow. It absorbs moisture readily and releases it slowly. It is a cool fabric, not soiling easily, and launders well if it is treated carefully, as it does not shrink. It should not be pressed with a hot iron, however, as the fiber melts easily. The fiber weakens when it is put in water, but regains its strength

when dry. Rayon is a clean fiber, because bacteria will not grow on it. Electricity does not pass through it.

Rayon rivals silk in beauty because of its luster and sheen, but it is harder to use in sewing, as it ravel badly. The strength of the fibers varies from $\frac{1}{3}$ to $\frac{2}{3}$ that of silk.

The rayon fiber usually takes the same dyes as cotton and retains its color throughout the life of the fiber.

Rayon has become a modern necessity for personal and household uses because of its gorgeous patterns, fast colors, high luster, and its effectiveness when woven with other fibers, as the threads of rayon are coarser than those of other fibers.

Manufacturing Process. — Purifying, cooking, washing, bleaching, twisting, winding, weaving, dyeing, and dressing are the processes necessary before rayon is ready for market (pages 169-176).

Tests for Rayon :

Breaking. — Thread breaks apart and the ends look like a bundle of very fine wires.

Burning. — It burns with a flash and leaves a very faint gray ash (except Celanese), and it melts as it burns and leaves a hard black bead.

Feel. — When rubbed together, it feels slippery and wiry.

Lye Test. — One tablespoon of lye plus one pint of water boiled ten minutes in a granite utensil. Rayon will float.

Microscopic. — Rayon has a longitudinal marking and sometimes air bubbles except the rayon made by the cuprammonium process, which has no markings and is smooth, fine, and cylindrical. It is difficult to distinguish this latter from real silk (page 177).

f. Silk

The Goddess of the Silkworm, "Si-Ling-Chi."

Silk is an animal fiber that was first cultivated in China. The actual date of its beginning is unknown as the Chinese jealously

guarded their arts; but, according to the old legends, a child Empress of China, Si-Ling-Chi, discovered the use of silk in 2500 B.C. Si-Ling-Chi was but fourteen years of age and was the wife of the Emperor W'Hang. One day she saw some caterpillars spinning threads around themselves to make their cocoons. Si-Ling-Chi watched, and when the cocoons were completed, she tried to unravel one, being delighted with the long strand of thread that she unwound so easily. It was a golden yellow color and for this reason yellow is the royal color of China. It was to Si-Ling-Chi's curiosity and her skill in beginning the first of the silk industry, that China was indebted for the great wealth it gained by the manufacture of silk; and for this reason Si-Ling-Chi, the little Chinese Empress, was made the "Goddess of the silkworm." The Chinese legends also credit the invention of the loom to Si-Ling-Chi. China kept the secret of silk until 550 A.D., when two priests smuggled silkworm eggs to Europe.

The silk fiber is one of the finest of all fibers and is spun by the silkworm as it makes its cocoon. The word "silk" is derived from the Anglo-Saxon word "seolc," which, if pronounced properly, sounds very much like our pronunciation of "silk." The filaments, which are held together by a gummy substance, are separated in manufacturing. Silk in the raw state is sold by the pound and one filament may be four thousand feet in length. Due to the extreme fineness of the filaments, five double filaments must be used to make up the thickness of one strand of raw silk. It takes approximately two pounds of silk to make a dress and we can easily see why silk is so expensive when it takes three thousand silkworms to spin a pound of it. If the silkworm is allowed to hatch, the silk filament is broken and only a second-grade product may be made from it. The product is called spun silk because of the broken fibers and lack of luster. There is also the silk spun by the uncultivated silkworm, the filaments of

which are much coarser than those of the cultivated variety. The cultivated silk is fine and transparent and will wear well if properly cared for.

Silk is in great demand because of its soft clinging qualities. Because it is such an expensive fiber it has been adulterated in order to put it on the market at a moderate price. Weighted silk retains its softness, luster, and color but does not wear nor keep long, deteriorating in sunshine. Silk takes readily to dye, and usually retains its color during the life of the silk. It is cool and pleasant to wear; however, it absorbs water rapidly and perspiration often causes the silk to split. Nevertheless, it is popular since it lends grace to the figure.

Manufacturing Process. — The process of silk manufacturing includes reeling, conditioning, throwing, degumming, bleaching, drawing, twisting, winding, dyeing, lustering, dressing, weighting, breaking, singeing, and calendering (pages 169–176).

Tests for Silk :

Breaking. — The end of the broken thread is straight and lustrous.

Burning. — Unweighted silk burns rapidly with little odor and leaves a crisp black ball. It appears to melt while it burns.

Weighted silk retains its original form after burning. The real silk burns out and leaves a mineral matter.

Color. — Several drops of nitric acid turn silk yellow.

Feel. — Silk is smooth, soft, and gives easily.

Lye Test. — One tablespoon of lye plus one pint of water boiled ten minutes in a granite utensil; silk fiber dissolves.

Microscopic. — The cultivated fiber looks smooth, lustrous, and even. The uncultivated fiber looks broad, thick, and flattened, and cross markings are sometimes apparent (page 177).

Millon's Reagent. — Dampen a sample of silk and heat gently; silk turns red.

Tearing. — Tears easily with a shrill sound. Frays at torn edges. If the thread is held taut, it makes a resonant sound similar to a violin tone.

g. Wool

*Baa, baa, black sheep,
Have you any wool?*

Wool is an animal fiber taken from a great variety of sheep. The quality of the fiber depends upon the kind of sheep and upon the place in which they live. The better qualities of wool come from the temperate zones, though sheep are raised in almost every country in the world. Wool fiber is curly and scaly in structure and though only fairly strong, its elastic nature makes it very durable. The interlocking of scaly edges makes the fabric warm and does not allow rapid evaporation. The rough surface, however, collects dirt and impurities, making it the least hygienic fiber.

Virgin or pure wool is wool as it comes from the sheep, and there are many grades. Before weaving, the wool is sorted according to the length of the fiber. That which is used for textile purposes is creamy white. Pulled wool is wool removed from the pelts of dead sheep by treatment with chemicals.

Worsted is made from long, straight, fine, even, and harsh fibers with few scales, that have been carded, or combed to lie parallel, and then twisted into threads. Worsted is hard to adulterate because the weaves are distinct and the fabric is firm. Their beauty depends upon the weave.

Woolens are made from short, large, uneven fibers, thickly covered with scales that have been carded and spun into yarn with the threads lying in all directions. It is easy to adulterate woolens because the weaves are indistinct, and the material is soft and elastic. Their beauty lies in the finish. Cotton and shoddy are often substituted for wool. Shoddy wool is worked only in

woolens and is graded according to source. Good shoddy comes from a good grade of wool scraps and may be superior to some virgin or new wool. The United States uses very little poor grade shoddy, but the good shoddy is economically necessary in wool manufacture as there would otherwise be a scarcity and the price would become prohibitive. Wool is easier to adulterate than any other fiber. It also shrinks more than any other fiber. Care must be taken in washing (page 278).

Manufacturing Process. — The process of wool manufacturing includes cleaning, carding, combing, drawing, twisting, winding, weaving, dyeing, fulling, napping, cropping, and pressing (pages 169–176).

Tests for Wool :

Breaking. — The thread pulls apart rather than breaks, and the ends are kinky and stiff.

Burning. — Wool burns slowly with a dull flame and bubbles as it burns. It has an odor like burning hair and feathers, and leaves a crisp, bead-like, brownish-black, irregular ash.

Color. — A drop of nitric acid on wool will turn the fiber yellow.

Feel. — Wool feels warm when rubbed together, and is elastic.

It will not crease easily.

Lye Test. — One tablespoon of lye plus one pint of water boiled ten minutes in a granite utensil; wool will dissolve.

Microscopic. — The overlapping scales are horny and transparent and usually two scales make up the circumference (page 177).

Tearing. — The broken threads are uneven and kinky and the fabric tears with a dull sound.

5. WEAVES AND KNITS

Master Jacquard has no fear of the spidery fate of Arachne at the hands of the Goddess Minerva.

Weaving is of very, very ancient origin, being found among relics of the Stone Age, and is about as old as anything that has

been handed down to us. It came into being when man's brain had developed enough for him to use his hands constructively. It was then that he made his first fish net, which was the first specimen of weaving. The next step was the making of rough clothing, and since that time weaving has been one of the most important of all industries. The Egyptians wove wonderful wrappings for their mummies as early as 3000 B.C., the fabric being equal to modern fabrics. Mechanical weaving was done in Egypt in 2000 B.C., but the more complex use of the shuttle by which figures were produced without embroidering was not known until 200 A.D. This was the method used by the Syrian weavers in the Eastern Roman Empire. The development of weaving was slow and the repeat patterns were of the simplest kinds, but the skill in weaving finally became an art. Fine French tapestries, especially the Gobelin, are the best examples of modern weaving. From the Anglo-Saxon "wefan," came the word we use for "weave."

The Greeks have a myth about Minerva and her weaving contest, which ended so disastrously for one competitor, the young maiden Arachne (A-rak'ne), who wove "not wisely but too well." Minerva, that austere Goddess, was angry (and perhaps secretly alarmed) at the marvelous skill of Arachne, and changed her to a spider. Since that time the spider tribe have always spun and woven. Their Latin name, "Arachnida," was taken directly from "Arachne."

Modern weaving was greatly advanced when Joseph Marie Jacquard (1752-1834) invented a new loom which bore his name, and created great excitement among the workers in the silk factories, who thought that this labor-saving loom would hurt their work. Jacquard invented it in 1801 and by 1812 there were 11,000 Jacquard looms in use in France. Today this master loom is used all over the world and has vastly improved the weaving industry.

Cloth is made in three ways: weaving, knitting, and felting.

Weaving is the process of interlocking two sets of parallel threads at right angles to each other, to make cloth.

The Plain Weave (Figure 200). — This weave is the simplest one and is used more often than any other weave. The woof or filling thread passes horizontally and in regular order through the warp thread of the fabric. It turns at the selvedge and repeats by going over the warp thread which it passed under in the previous pick. This weave gives a plain and even effect to fabric. It has a great number of variations, as the basket weave, rib weave, and so on. Since the threads do not lie close together, plain weave fabric is not considered a strong fabric.



FIGURE 200

Plain Weaves :

Cotton. — Batiste, bunting, burlap, calico, cambric, cham-

bray, cheesecloth, chintz, crêpe, cretonne, duck, flaxon, gingham, Indian head, lawn, longcloth, linene, mull, muslin, nainsook, organdie, outing flannel, percale, percaline, sheeting, voile.

Linen. — Art linen, butcher's linene, cambric, canvas, crash, dress linen, glass toweling, grass cloth, handkerchief linen, tracing cloth, toweling.

Rayon. — Crêpe reve and ecstasy.

Silk. — Chiffon, chiffon cloth, chiffon taffeta, chiffon poplin, china silk, crêpe de chine, crêpe, habutai, India silk, khaki kool, peau de soie, pongee, Persian, pussy willow, rajah, taffeta, tub silk.

Wool. — Albatross, batiste (wool), broadcloth, challie, cheviot, flannel, homespun, melton, nun's veiling, panama, shepherd's plaid, tweed.

The Twill Weave (Figure 201). — This is the most satisfactory of all the weaves and is a firm, compact cloth, known as the serge weave. It is used to make a large per cent of worsted cloth. The woof or filling thread passes over one and under two warp threads in a regular variation. In the process of weaving, the filling thread moves forward one thread after each pick, intersecting so that a diagonal line is produced across the surface of the material. It has many variations such as the break, the skip, and the cork-screw weave.



FIGURE 201

Twill Weaves :

Cotton. — Drill, denim, gabardine, galatea, jean, khaki, canton flannel, crash, cretonne, silesia, ticking.

Linen. — Crash, ticking.

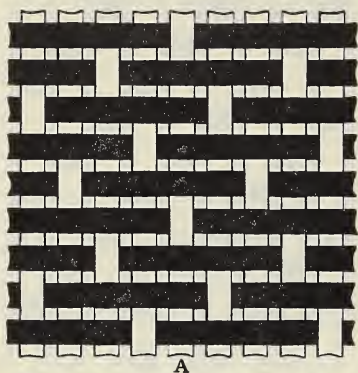
Rayon. — Durando serge.

Silk. — Foulard, messaline, peau de cygne, silk serge, surah.

Wool. — Broadcloth, cashmere, cheviot, covert cloth, cravenette, diagonal, drill, flannel, gabardine, henrietta, khaki, prunella, serge, shepherd's check, shepherd's plaid, tweed, tricotine, whipcord, zibeline.

The Satin Weave (Figure 202). — This resembles the twill weave but does not have the diagonal effect. It gives a lustrous appearance. When the woof or filling thread passes under one and over from 4 to 12 warp threads it is called the sateen weave (A), but if the woof or filling thread passes over one and under from 4 to 12 warp threads it is called the satin weave (B). The

threads that are not held down are called floats and cause the material to have a smooth appearance and reflect light. The interlacing of threads in this weave is done at irregular intervals,



and as a result the twill is invisible. If the float or surface is of the warp thread running lengthwise, it is called the *satin weave* and generally used for silk material. When it is formed by the woof or filling thread running crosswise, it is called *sateen weave*, generally used for cotton material.

Satin Weaves :

Cotton. — Damask, galatea, lining, sateen, surf cloth.

Linen. — Some damasks.

Rayon. — Exsellum, baronet satin.

Silk. — Charmeuse, cotton-back satin, crêpe meteor, de lyon, duchesse satin, messaline, peau de cygne, satin.

Wool. — Prunella, Venetian cloth.

The Figure Weave (Figure 203).

— This is a combination of plain,

twill, and satin weaves and is produced on the Jacquard loom. The warp and woof or filling threads are woven so that the floats vary in length, thus making various patterns. In figure weaving, the patterns are always woven in. Figure weaves are the most expensive. The two main weaves are brocades

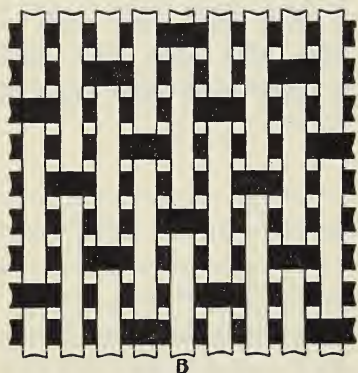


FIGURE 202

and damask. Brocades are not reversible, while damasks are; example: tablecloths. Tapestry is another form of figured weave.

Figure Weaves:

Cotton. — Bird's-eye, brocades, cotton damask, diaper cloth, huck toweling, huckaback, madras, piqué.

Linen. — Bird's-eye toweling, damask, diaper, granite, huckaback.

Rayon. — Brocades, broché.

Silk. — Brocade satin, brocade silk, broché, heavy brocades, Jacquard.

Wool. — Coat fabrics, granite, novelty dress fabric, upholstery fabrics.

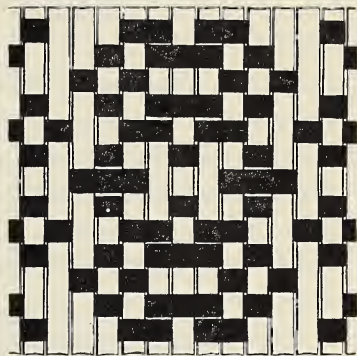


FIGURE 203

The Knitted Fabric (Figure 204). — This is made with one thread instead of two and catches one loop into the other. Two kinds of knitting are used. If the thread runs horizontally, the

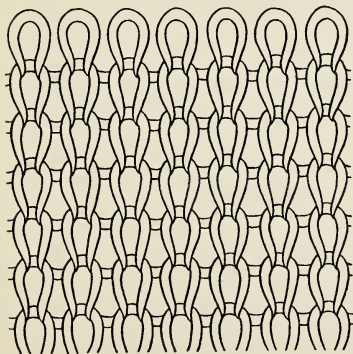


FIGURE 204

material is known as weft knitting, and if the thread runs vertically, it is known as warp knitting. Weft knitting has a variety of patterns. The variations of this knit are the plain, purl, and rib knits. Warp knitting does not run or ravel and does not stretch but tends to shrink in length. Warp knitted fabric is the more expensive of the two.

Weft Knitting:

Cotton	} Hosiery, underwear.
Linen	
Rayon	
Silk	
Wool	

Warp Knitting:

Cotton. — Chemisette, eider down, stockinet.

Linen.

Rayon. — Coats, dresses, gloves, milanese, neckties, scarfs, sweaters, tricot silk, underwear.

Silk. — Same as rayon.

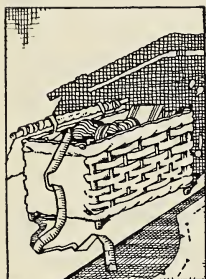
Wool. — Sweaters, wool jersey.

Up, up, and up the steady road we climbed,
 And left the weak old-fashioned things behind,
 From hand-loom to the Jacquard loom —
 A humming clatter in the room;
 Once grandma's fingers wove and knit,
 But now steel fingers manage it.

CHAPTER VI

MEASUREMENTS

A perfect thirty-six?



IN order to get accurate measurements, the individual to be measured must stand erect "like a soldier" and perfectly still, and have someone do the measuring carefully. Here's a chance to "stand up straight and grow tall." Measurements should be taken with the tape held easy along that portion of the figure to be measured. Patterns are made to follow certain measurements, and therefore the fit of the garment will depend upon the accuracy of the measurements taken. Bust and waist measurements and age determine the size of the pattern needed. The measurements that need to be taken will depend upon the type of the garment. On the back of each pattern is found a chart giving the amount of fabric (of various widths) required to make the garment.

METHOD OF TAKING MEASUREMENTS

Neck. — Place the measuring tape around the base of the neck, but not tight.

Length of Shoulder. — This measurement should be taken from the base of the neck to the shoulder bone, on a line which cannot be seen in front or back at eye level.

Center Front of Neck Line to Waist. — Measure from the center front of the neck line to the center front of the waistline.

Center Back of Neck Line to Waist. — Measure from the center back of neck line to the center of waistline.

Underarm. — Measure from the center of armpit to the waistline a little toward the back. This measurement should be made on an imaginary line which cannot be seen at front and back when on a level with the eye. The imaginary line should be a continuation of the imaginary shoulder line. When the measure is taken, the arms should be crossed so that the finger tips touch the shoulder bone.

Width of Back. — Measure across the broadest part of the back at shoulders, between the armseyes. Five inches below the base of neck weave in a pin. Measure from armseye to armseye, keeping parallel with the pin line.

Width of Chest. — Weave in a pin four inches down from the hollow of the neck (for the average figure) and measure from armseye to armseye, following exactly the woven pin line.

Bust. — Standing behind the model, measure the bust by placing tape around largest part of bust, keeping tape straight across back at bust line level.

Armseye. — Place the tape around the armseye (but not tight) so that it comes over the top of the shoulder bone and follows the natural line of the armseye.

Front Arm. — With the arm straight at the side, measure from the shoulder bone to the wrist.

Back Arm. — With the fingers touching the lobe of the ear, measure from the shoulder bone to the bone at the wrist.

Upper Arm. — Place the tape around the arm, midway between the shoulder and elbow. This is usually the largest part of the upper arm.

Elbow. — With the elbow slightly bent, measure closely around it.

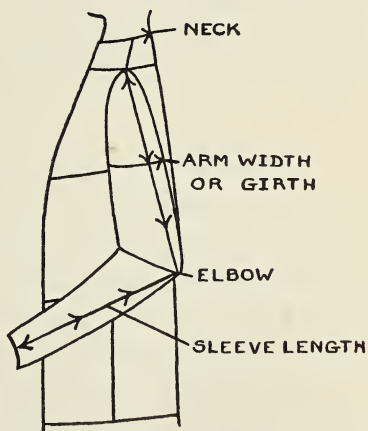
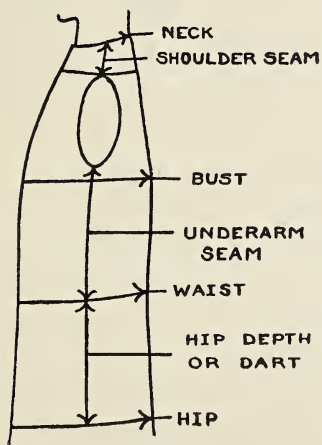
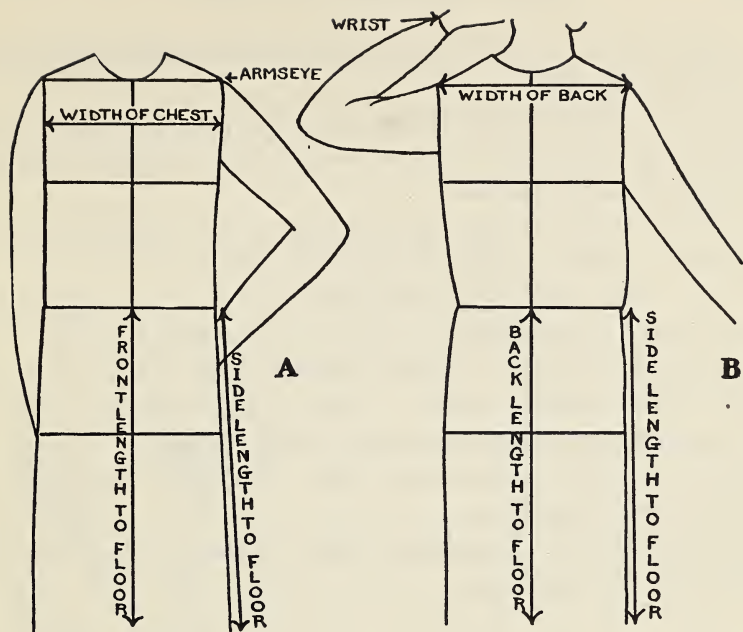


FIGURE 205

Lower Arm. — Place the tape around the arm midway between the elbow and wrist.

Wrist. — Place the tape around the wrist just above the wrist bone, for a fitted sleeve ; and for a loose sleeve, measure around the largest part of the fist.

Waist. — Place the tape closely around the smallest part of the waist. This is usually the normal waistline.

Hip. — Place the tape around the hips (but not tight) at the largest part, keeping the tape line parallel with the floor.

Waistline to Floor. — Measure from the right and left under-arm seam at waistline, to floor. Then measure from the center front and center back of the waistline to the floor.

Center Front from Neck Line to Floor. — Measure from center front of neck to the floor.

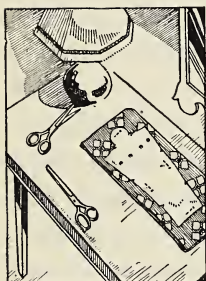
Center Back from Neck Line to Floor. — Measure from center back of neck to the floor.

CHAPTER VII

CUTTING

Here's snip and nip and cut and slish and slash.

— SHAKESPEARE



THE success of a garment depends not only on the choice of fabric and pattern, and the care exercised in the fitting, but also on the manner in which the garment is cut out. Just as a good workman must have a proper place in which to work and good tools to work with, so must a good dressmaker. It is important to know what aids there are to the proper

cutting of any garment.

1. KNOWLEDGE REQUIRED IN CUTTING GARMENTS

Shears and Scissors. — First, keen, true shears are required for successful cutting of garments. Shears measure over six inches in length and may have the one handle larger than the other. The small one is for the thumb and the large one for the four fingers. Scissors measure less than six inches in length and have sharp points. The handles may be of the same size or one larger than the other, but they are never as large as the handles of shears. Always cut with an even motion, using the middle of the blades. It is necessary to use short strokes on curves and long strokes on straight lines.

Cutting Table. — The cutting table should be smooth and large enough to lay the pieces of the pattern on the fabric conveniently while arranging the pattern economically on the fabric.

Cutting Fabric Straight. — All fabric is woven straight in the looms, but sometimes printing or rolling causes it to have a crooked finish. One of two methods may be used for straightening the ends of the fabric. Tearing is the quickest method, but cannot be used on all fabrics. Drawing a thread and cutting on the drawn line is more satisfactory.

Fabrics have a warp and a woof, or filling thread. In cutting, always cut so that the threads will run vertically and horizontally, as it makes the garment appear and wear better. The warp thread runs up and down with the selvedge, and is called the foundation thread in weaving. The woof thread runs crosswise of the fabric and is called the filling thread. In strength and quality it is inferior to the warp thread. *Garments should always be cut with the warp thread going vertically with the pattern.* The word "grain" used in connection with a fabric means the direction in which the threads run, as lengthwise grain or warp, and crosswise grain or weft or woof thread. The grain is the starting point for all designing and cutting and should be followed throughout.

Cutting Fabrics with Weaves or Pile. — Straighten the end of the fabric that comes at the top of the design, join the selvedges together and pin. Twill, tricotine, cheviot, and other fabrics that have diagonal weaves are cut so that the diagonal weave runs downward from the left to the right in the front and sleeves. The back will naturally follow from right to left. When the garment is finished this gives a diagonal circle effect around the body. Nap fabric is cut with the nap going up, so that the nap will stand out and show the full richness and depth of color. The pile of panne velvet, and woolens and broadcloth in which the pile is purposely flattened, should run downward.

Some velvets have straight pile with no up and down. They can be cut either way. Satin weaves necessitate cutting the garment pieces all one way so that the sheen will be the same. Light reflects differently, according to the angle at which it strikes the weave.

Cutting Fabric with Designs. — Designed fabrics require careful matching so that the stripes, plaids, or figures will be the same on each side of the garment. The design must be worked out that will be best for the center of the front and back. Designs should be made to correspond by measuring for equal placement from the underarm seams, center front, and back of the garment.

The heavy parts of design should be kept at the bottom and the lighter at the top of the garment. Designs that include flowers are usually cut so that the flower stems go downward. There is often considerable waste of fabric in matching plaids and figures. There may also be trouble in cutting prints because the design is not true to thread. Care must be taken when there is a difference in the right and left side of a pattern to lay them on the fabric correctly. In cutting two pieces that are alike, be sure to have them with the two right or two wrong sides together.

Pattern Markings. — Pattern markings should be carefully observed. Three large perforations (○ ○ ○ or \longleftrightarrow) indicate the correct placement of the pattern on the straight (or grain line) of the fabric. Garments not cut with the grain of the fabric will not handle well nor look so attractive as those cut with the grain. Notches ($\text{—}\wedge\text{—}$) should always be cut outward. Fabric to be laid on the fold is marked on the pattern by perforated dots (° °) arranged in a triangle. All identification marks as for darts (°°° or $<$), tucks (==== or °°°°°), plaits (°°°°), pockets, ruffles, and flares, should be marked with tailor's tacks (Figure 89). Short length sleeves are indicated by a line of perforations across the sleeve pattern. Heavy

straight lines (—), two large perforations (○○), or dotted lines (---) indicate shirring and can easily be marked on the fabric by placing the pattern and fabric on the ironing board, and using a tracing foot along the shirring line. *Mark all parts of the pattern carefully before removing it from the fabric.* Remove pattern and baste along the perforated shirring line with any color of thread except red. Red thread is avoided because of the danger of marring the fabric. Simple plaits and tucks may be pressed in place while the pattern is on the fabric, by folding the pattern and creasing the plait with a warm iron.

Each pattern is an individual problem, and the direction sheet or guide or deltior accompanying each one gives in detail the steps to be followed. It should be studied thoroughly before anything is done to the pattern.

Seam Allowance. — In cutting garments, extra seam allowance should be kept in mind for fitting and adjusting correct seam-lines. This should always be observed unless the pattern has been previously used and adjusted, or a “cut-to-measure” cloth pattern is being used. The article, or garment, should be constructed as it is cut, in order that the fabric may be cut to fit established lines, thus assuring the fitting of all parts. The extra fabric at the seamlines may then be cut away, leaving the necessary width for the seam.

Placing the Pattern. — Place the essential pieces of the pattern onto the fabric. Begin at the top of the design, at the straightened end. Arrange the pattern economically and pin to the fabric, which, with the pattern pinned firmly to it, may be rolled up to avoid creasing while the garment is in the process of making. All pins, except those used in marking the line at which a fold is to be made, should be placed at right angles to the edge or fold that is being pinned. When a pattern piece is laid on a fold, pin the edge which lies along the fold first. *Do not lift the fabric from the cutting table as it is cut.*

2. ORDER OF CUTTING AND CONSTRUCTING GARMENTS

Pattern:

- a. Study pattern direction sheet, guide, or deltior carefully.
- b. Identify all pieces and eliminate all those not needed.
- c. Study markings carefully (pages 201–202).
- d. Compare pattern with individual measurements (which have been taken without drawing the tape too tight) (pages 195–198).
- e. Test pattern by pinning pieces together and fitting to figure (pages 219–225).
- f. Alter pattern to fit the individual figure (pages 225–245).
- g. Press pattern and fabric so that they will lie smooth (pages 281–284).
- h. Place pattern and cut (pages 199–202).

Front and Back of Garment:

- a. The back shoulder seam should be cut $\frac{1}{2}$ inch wider than the front.
- b. Allow one inch on shoulder and underarm seams.
- c. Allow $\frac{1}{2}$ inch around the neck line and armseye.
- d. Cut front and back of garment. Before removing the front and back pieces of the pattern, crease a line down the center front and back, using a warm iron. If the fabric does not crease well, it is wise to baste with a thread along the faint line.
- e. Make darts (pages 46–47; 222–223), tucks (pages 50–51), shirring (pages 49–50), gathers (pages 47–48), and plaits (pages 51–54) that come in the foundation seams.
- f. Establish seam lines (pages 219–225), make seams (pages 40–43), and finish seams (pages 43–45).

Collar and Facing:

- a. Establish the neck line and neck opening (pages 79–81; 163; 164; 195; 223).
- b. Cut the facing to fit the neck opening (pages 81–82).

c. Make facing (pages 81-82).

d. Cut the collar to fit the established neck line, allowing for the desired collar finish.

e. Make the collar (pages 83-89).

f. Attach the collar (pages 82-83, 86-87).

Sleeves:

a. Establish the armseye (pages 91-92; 196; 223-224).

b. Place the pattern on the fabric so that the woof threads are exactly vertical at the bottom of the armseye at the seam lines.

c. Cut sleeves to fit established armseye (pages 89; 196; 198).

d. Make sleeves (pages 89-99).

e. Set in sleeves (pages 94-96).

f. Establish sleeve length and opening (pages 90-91; 196).

Cuffs:

a. Finish the bottom of the sleeve (pages 98-99).

b. Cut cuffs to fit outline of sleeve.

c. Make cuffs (pages 99-103).

d. Attach cuffs (pages 103-104).

Skirt:

a. Establish waistline (pages 198; 225).

b. Take skirt length plus hem and seam allowance (pages 63-64; 198).

c. Cut skirt and allow one inch on vertical and one half inch on horizontal curves and seams.

d. Establish skirt seams (pages 221-222). Make skirt seams (pages 40-43).

e. Make plackets (pages 73-79), shirring (pages 49-50), gathers (pages 47-48), smocking (pages 23-24), plaits (pages 51-54), godets or flares (pages 54-55).

f. Join the skirt and waist. (Standing fell seam, pages 42-43; true bias, pages 56-57.)

Belt:

- a. Establish belt line and desired length and width of belt (pages 114; 198; 225).
- b. Bust, waist, and hip (pages 196-198; 225).
- c. Cut belt, make belt (pages 115-116), attach belt.

Hem:

- a. Establish hem line (pages 64-66).
- b. Make hem (pages 66-71).

Pockets:

- a. Establish placement of pockets (page 104).
- b. Cut pockets.
- c. Make pockets (pages 105-114).
- d. Sew on or in garment.

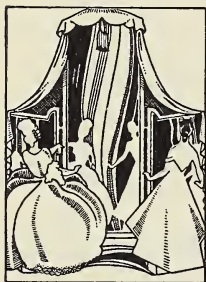
Finishing:

- a. Sew on trimmings, snaps, hooks and eyes, or buttons (pages 125-141).
- b. Press garment well (pages 281-284).

CHAPTER VIII

THE WHYS OF CLOTHES

The body is the shell of the soul and the clothes the husks of that shell, but the husks often tell what the kernel is.



THE costume of an age cannot but be characteristic of the point of view and of the manners and customs of the men and women who planned it and wore it. Dress began as a decoration. No attempt was made to fit these garments; all skins or furs were flat, and fabrics were woven flat. The garments were draped or held around the body by a girdle and some substitute for a pin. As a greater technical skill was acquired and the number of garments increased, it was found satisfactory to have the shape of the garment conform somewhat to that of the figure. Once this fashion was established, more fitted garments followed and with them the question of convenience arose. Flexible fabrics were chosen to permit freedom of action, and they were shaped and sewed at home. As fabrics increased in number and patterns became more fitted, the making became more difficult and demanded the special attention of trained workers. Thus we have the simple beginning of dressmaking as an occupation.

1. CLOTHES AND CHARACTER

The history of clothing makes plain that clothes have served through the centuries as a protection, but clothes should be more

than a covering and an ornament. They should express character. Since woman is one of the most decorative of all created things, she should understand the principles that govern the selection of clothes. To know how to dress well is satisfying not only to a woman herself but to all those with whom she comes in contact.

Throughout the history of mankind clothes have constantly changed from one year to the next, for man's attire has been modified to suit his needs at a particular time. These changes are closely related to the various phases of the history of man himself.

Another reason that clothes are such an important link in our social chain lies in the fact that they are an index to character and individuality.

Thus the style and the change of fashions of yesterday and to-day have only come about by demand, and through the years we have had a constant evolution of dress design because of advancing civilization. To-day, frocks are designed for perfect freedom of movement. In this respect they bear some relation to the ancient robes of Greece, when women were models of grace and beauty.

In the days of absolute style decrees, a woman was excused for looking unattractive because she was a slave to the caste laws of dress. In this day of style discrimination and freedom, the unbecomingly dressed person is left with no excuse. Especially is this true, since the cost of dressing becomingly and stylishly is not prohibitive to anyone.

Dressing to-day, for the modern woman, ought to be an aesthetic pleasure. Every attire should be made the expression of an ideal. A dress carelessly or inappropriately worn, indicates to just what extent the wearer is sensitive to the refinements of her immediate environment.

Everyone should discover her good features and dress to them. The keynote to distinguished dress is to know oneself, and dress appropriately. Study and know your "type" (page 265).

Use your knowledge so that every garment, every accessory, expresses your individuality.

Upon determining your type, select the best lines suited to you and endeavor to apply them in dress. Remember that to be well dressed, it is essential to have unity in every costume, and that the costume should express both utility and beauty.



FIGURE 206

It is everyone's right to be healthy. Being beautiful is one's duty, and everyone should make the most of her personal appearance. Because a girl's clothes are likely to give "that all-important first impression," a well-dressed girl should never dress conspicuously.

Clothes should be thought of in terms of simplicity, physical comfort, and health. Harmonious lines in dress require correct carriage of the body to express them; and clean, appropriate, neat clothing cultivates self-respect and has a tonic effect on

mental attitudes in the consciousness of being well groomed. Discomfort is never beautiful. Beauty in clothes is not difficult if thought of in terms of suitability and becomingness. The well-dressed girl will study, admire, or criticize according to her taste and her knowledge of what clothes express.

Remember that clothes fitted to one's needs are the kind of clothes to wear. They may be made or bought, but in either



FIGURE 207

case, they should express the individuality of the wearer. If you are going to make a garment, choose your pattern and fabric carefully; if you are going to buy a garment already made, choose a good conservative model. In either case, take care of your clothes, and wear them more than one season if necessary. The buying of cheap clothes is false economy. "Play up" to your good features and look the whole world in the face. To look well is a duty, first to yourself, then to your family, and last to your friends.

2. STYLE

*Styles that are now called new
Have been worn by more than you ;
Other times have worn the same,
Tho' the new ones get the name.*

Every fashion and every detail of fashion of the present day may be traced to that of some former period. "Originality" means the power to adopt and adapt suitably the fashions of the past to the demands of the present.

It is to the French that all the fashion world looks for inspiration and guidance in style, design, and costume. Because of the great amount of available historical data in libraries, churches, and museums, the French have been clever enough to "originate" with great skill new modes based on the fashions of the ages.

The trend of fashion swings like a mighty pendulum, slowly from one extreme to the other. As Dame Fashion is creating new styles she is by degrees killing others. Her work is related and connected because styles overlap in their struggle for existence. The style creator may create a style, but if the buyer doesn't buy, it never passes into vogue. Style and fashion are synonymous terms; but not so vogue, for vogue is an accepted style.

It is not to be expected that any one style of garment will suit all types. Color and cut are always a matter of adaptation to type. Also, no matter how exquisite the garment, how perfect in coloring or design, if it is not appropriate to the occasion, it is either outlandish or bizarre. There is one kind of costume which is always pleasing and strikes a note of refinement in dress. This costume is one in which one color predominates. In selecting stylish garments it is invaluable to know that the figure controls the lines and design; that the complexion and mental temperament control the color; and that the occupation and age control

the fabric. Age consciousness is old fashioned. The sensible thing to do about age is to dress becomingly to it, find a color or a line that seems to be made for you, and then not be afraid to repeat this line or color. Remember always that garments have the power of magnifying physical imperfections and of emphasizing good points.

It is the secret ambition of every woman to be regarded as an exponent of good taste and judgment in the matter of dress.



FIGURE 208

Next to being referred to as "the most beautiful woman present," she would choose to be called "the best-dressed woman present." It will be interesting to note that this decision is based upon four facts: she is wearing a color most in harmony with her eyes, hair, and complexion; a fabric that is of superior quality; a cut designed to reveal the best lines of her figure; and a selection of accessories that are correct for both her garment and for her own

person. The prime essential of achieving style is to select the right clothes and to know how, when, and where to wear them.

To appear at one's very best and look distinctive requires clear sight and discrimination. The full-length mirror and a strong light will reveal not only shortcomings but also the most becoming lines. Therefore, make it a habit to look all around you in the mirror — front view, side view, and back view. Let your mirror answer that well-known plea :

Oh wad some power the giftie gie us
To see oursel's as others see us!

The girl who wishes to be well-dressed will observe this caution : "Do not buy anything, no matter how pretty and tempting, that would attract attention more than your personality, for then the you that is 'you' will be lost." It is not what you spend for clothes, but how you spend it. Remember the advice to buy a few clothes of good quality and wear them. With each season come new styles, so select only the clothes that you will absolutely need for the season. If this advice is followed, there will be no need of discarding or remodeling clothes that have spent more time on the hanger than on the avenues.

Style with a dash is demanded and the violator is mentally "taken to court." Weave into your wardrobe an artistic splash of color, style, and individuality, and you will have solved the problem admirably. To be attractive and appropriately dressed is a serious undertaking, but one can succeed if "persistency" becomes the watchword.

Our feelings are expressed toward styles in four ways. We —



glance at them, because they are so uninteresting that they do not hold our attention.



look at them, until we find ourselves staring, because they are so unusual and pleasing.



laugh at them, because they are so comical.



frown at them, because they are so ridiculous.

What way does the World look at you?

3. BEAUTY

Beauty which is to be a joy forever, must be a joy for all.

—RUSKIN

Beauty can be compared to a molecule which is composed of several atoms. Each atom is essential in making up the molecule. The several beauty atoms shape themselves into a pentagonal molecule: the five-pointed star of beauty consisting of clothes, manners, actions, speech, and deeds. The charm of these atoms expresses one's personal beauty, which is the possession of every girl if she can demonstrate outwardly her inward grace. True beauty comes from within and unhesitatingly speaks its own language. Yet, very seldom does one meet a person who possesses the charm of real beauty, because there is a constant neglect of self-development, pleasing personality, and sincerity. If one would be charming, she must do the things which make her charming.

BEAUTY IS AS BEAUTY DOES

Beauty is Nature's coin, and must not be hoarded,
But must be current, and the good thereof
Consists in mutually partaken bliss,
Unsavoury in the enjoyment of itself :
If you let slip time, like a neglected rose,
It withers on the stalk with languished head.

— MILTON



A girl of beauty can be compared to the perfume of a rose — a quality given by Nature for the purpose of attracting, winning, and holding the love of others. Unhappily, time will take away youth and outward beauty will fade. Physical beauty, Nature's first gift, is the first she takes away. Happily, beauty of spirit endures.

Since physical beauty, then, is not enduring, is it not wise to make much of it while it lasts? Let's consider that five-pointed star of beauty once more and discover, if we can, how each atom may become a part of your own beauty development.

First: Check health, vigor, and grooming. Be glad you are alive and you will have gained a certain charm which cannot be erased. You can add to that the charm of sparkling cleanliness. Give yourself the daily care that will accomplish it. Good looks, however, are more than skin deep. Note the clothes to see if they are expressions of your own individual and developed charm. Do they express the law of color harmony? One can wear almost any color and look well, but not beautiful, if there is the least dissonance. Perhaps, we shall say, the accessories "are out of tune." Do these accessories express your individuality? Observe closely to see if hat, purse, gloves, hose, and slippers

add strength to the ensemble. Does' the whole represent a harmonious assemblage of color and does it represent your personality? If it does, then the possession of the charm of beauty in clothes is found and a truly charming personage is created.



FIGURE 209

Second: Note your manners, for they are like a powerful and revealing light — there is nothing more telling within one's possession. Do you know that fine manners are a stronger bond than a really beautiful face? Nothing except sincerity that flows from the heart can give a truly pleasing effect to external manners. Good manners always carry with them a dignity which is forever respected.

Third: How often one's actions are more expressive than words! To strangers, your actions proclaim you, without an opportunity to prove or disprove their conclusions. To your friends, your actions may bring the soothing touch that words so often fail to bring, and prove, more than anything else, your inward beauty.

Fourth: Does your voice possess a soft silvery tone? Few realize the value of a low, modulated, refined voice. Someone has said that the voice is the most potent factor in the development of personality; that refinement of speech is more indicative of character than refinement of dress or gesture. The voice is indeed an index of character and the tones are mightier than strings or than cymbals of brass. Longfellow has called the voice "the organ of the soul." It is the suggestion of a tender heart. And when, besides, the eyes reveal the brightness of attention and interest and reflect approval of the person to whom one is speaking, one has accomplished a great thing.

Fifth: Do you realize that deeds leave their indelible impressions? Each good deed gives strength to perform another. True beauty, the charm of an admirable character, mirrors inward goodness which is the constant replenished source of good deeds. Everyone may develop charming beauty equal to the essence of the perfume of a flower. Would that all might give this perfume, which comes from their hearts, to the whole world that its fragrance might benefit mankind.

4. CLOTHING BUDGET

*Costly thy habit as thy purse can buy,
But not expressed in fancy; rich, not gaudy:
For the apparel oft proclaims the man.*

— SHAKESPEARE

In this world of constantly changing styles, lovely new fabrics, alluring advertisements, and the lavish display of "clothes" by many of our neighbors, is it any wonder that many of us forget about common sense and spend more than we can afford in "trying to keep up with the Joneses"? Competition in dress is an immortal tempter and exists because our instinctive love for beauty and our childish desire to be the "center of the stage" must be satisfied. Extravagance and luxury pursue their way,

and to hold the scepter of taste and excite admiration and envy is a costly privilege. Yet in this "go-getter" age, it is smart to be economical. Economy is the younger sister of Wealth and travels over the Road of Budgets.

A budget is a workable plan for economically spending an income. Earning and spending of money go hand in hand.

There are two ways of buying. One may buy on the impulse of the moment, without a knowledge of her needs, but the result is sure to be wastefulness and dissatisfaction; or one may follow a clothing budget, which enables one to dress smartly on a limited amount, and results in a balanced wardrobe. It is not difficult to see which plan would be the more satisfactory, since an individual owes it to herself, her family, and her friends, to appear as well dressed as her income will permit.

A budget affords much in addition to a good appearance. It enables one to use her money in such a way as to acquire what she needs and can afford. She has the satisfaction of knowing how her money is being spent and this gives her knowledge to be used in preventing future wastefulness. Thinking of the little things in dress soon brings the realization that it means laying the foundation for thrift in a large way.

The two principles of every budget are: definite organization and accurate usage. If observed, the two principles will greatly eliminate financial worry.

Every branch of expenditure should have a budget, for a family budget develops sense of honor, understanding, and coöperation among the members of the family. The total yearly income is divided into portions that will meet the needs of the year if wisely distributed. Ten to twenty per cent is devoted to clothing and this per cent is set aside to be subdivided to meet the needs of the individual members of the family, the division being somewhat governed by age and demand. This amount is apportioned for outer and under clothes, and for accessories; on the average,

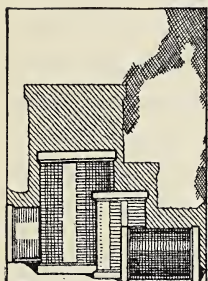
seventy per cent for outer clothes, twenty per cent for underclothes, five per cent for accessories, and five per cent for sundries.

If the clothing allowance is small, good quality rather than quantity should have first consideration. In fact, regardless of the income, the rapid change of styles makes this a wise suggestion to follow. A good garment insures a feeling of satisfaction, always looks well, and outwears several cheap, conspicuously shabby ones.

An individual color scheme, and clothes carefully worked out to meet the needs of the wardrobe, will not only save money, but will lend distinction and beauty to the wearer. When people become aware of the fact that all waste, regardless of its nature, is morally wrong, it will be unnecessary for stern necessity to force them to practice economy. There is no bigger field in which to practice economy than in the matter of clothes. Follow Shakespeare's advice and "put money in thy purse," therefore, if you would make a clothes budget and then keep within it.

CHAPTER IX

PATTERNS AND ADJUSTMENTS FOR VARIOUS FIGURES



FITTING deals with the accurate establishing of the body lines which are used as measurements for the alteration of patterns, and for the cutting and making of the garment. You have solved your fitting problem when you have the knowledge of the correct placement of these lines, making the garment in keeping with them.

There are two reasons why we fit garments. First, to fit the form of the individual; and second, to keep the threads of the fabric horizontal and vertical. A well-fitted garment will allow freedom of movement without being too large. Move the body normally when you are fitting garments so as to be certain that it will be graceful in motion. Tight clothes emphasize bulk, so beware that you do not get garments too tight above or below the hip line. Different girdles and underwear will change the fit of garments surprisingly. The style and use of the garment dictates how it should fit.

1. HOW TO SOLVE YOUR FITTING PROBLEMS

45. Seams. *Location of Shoulder Seam* (Figure 210). — The location of the shoulder seam should be most carefully placed because it serves as the foundation of a well-fitted garment. The normal shoulder seam begins at the highest point at the base of

the neck and terminates $\frac{1}{2}$ inch back of the highest point of the tip of the shoulder. The seam should be in a straight line and should not be seen from the front or back, when the eye is on the level with the shoulder. This rule should be changed only for the round shoulder, in which case the shoulder seam is moved a little toward the back. The back shoulder seam of a garment should be $\frac{1}{2}$ inch longer than the front for the average person, and the fullness may be held in evenly along

the shoulder seam to fit the shoulder blades more easily. The amount of fullness depends on the length of the shoulder and the material that is used. Shoulder seams should be fitted by starting at the neck line and working toward the armseye, keeping the threads of the fabric vertical and horizontal.

Establishing Shoulder Seam (Figure 211).—To establish the shoulder seam, carefully pin the center front and back pieces of the garment to the center front and back of the model. Pin from the neck to the hip line. Care must be taken to keep the neck line in position while pinning the

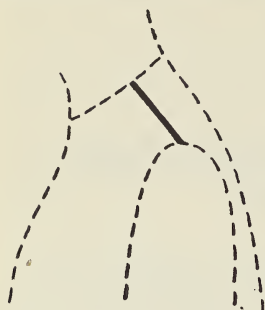


FIGURE 210

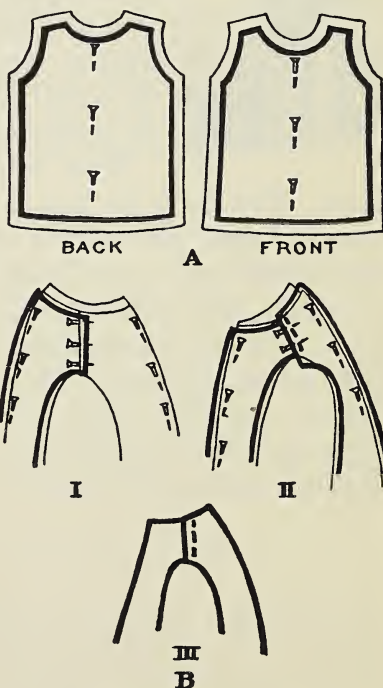


FIGURE 211

front and back pieces to the model. Smooth the back shoulder piece forward to fit the model, keeping the threads of the fabric horizontal and vertical. Pin carefully in place (I). Weave in pins on the back piece along the shoulder line. Smooth the front piece upward, folding under the fabric at the shoulder line until the fold just meets the shoulder pin line of the back. Pin the front piece to the back piece along the fold at the established shoulder line (II). The finished seam line should be made along the pin line on the back piece and the fold on the front (III).

Location of Underarm Seam (Figure 212). — This seam starts at the armpit directly under the high point of the shoulder and extends the length of the body (I). From the side it should resemble a continuation of the shoulder seam. It should be exactly at the center side of the body and should not be seen from the front or back when the eye is on a line with the center side. Fullness should be eased in at the front. The shoulder seam should be established first.

Darts and gathers bring the fabric up at the seam line when the fabric does not run vertically around the body. Smooth the back underarm piece forward to fit



I



II



III



IV

FIGURE 212

the model. Pin carefully in place, keeping the threads of the fabric horizontal and vertical (II). Weave in pins on the back along the underarm line. Smooth the front toward the back, folding under the fabric until the fold just meets the underarm pin line (III). Pin the front to the back along the fold at the established underarm line. The finished seam line should be made along the pin line on the back and the fold on the front (IV).

46. Darts. *Location of Darts and Lifts* (Figure 213). — Darts, besides adding fullness, lift the material so that the thread runs vertically and horizontally with the lines of the body. Darts

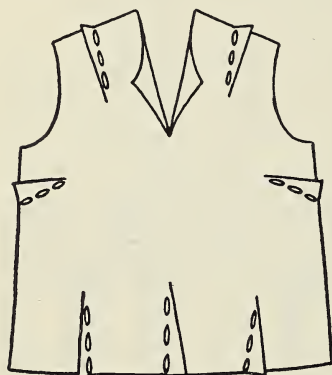


FIGURE 213

are not needed in the garment until the figure starts to develop. The larger the curves of the figure, the deeper the darts will have to be made to take in fullness and to keep the threads running vertically and horizontally. The four placements of the darts, or lifts as they are sometimes called, in the waist are located at the shoulder, center neck line (as a lap), under the arm, and at the waistline between the center and seams in either front or back.

The shoulder and underarm placements are the most used. The length of the dart will depend upon the form of the model and material. The width of the darts will depend upon the amount of fullness required. If much fullness is required, several small darts should be made and placed in groups.

The shoulder dart is established in line with the point of the breast, and just past the center of the shoulder seam, either toward the neck line or the armseye. It acts as a pad for the hollow or dip in the shoulder line. The dart at the underarm seam is established so that it will point diagonally toward the

point of the breast. It should not be placed closer than one inch below the armseye.

The waistline darts are established so that they are parallel to the center front. The neck line darts are established parallel with the center front or diagonally toward the point of the breast.

Waistline darts above the waistline point diagonally upward and all below the waistline should point diagonally downward. (For making darts, see page 46.)



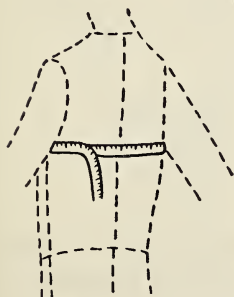
FIGURE 214

47. Lines. *Location of Neck Line* (Figure 214). — The location of the neck line should not be established until the shoulder and underarm seams are finished. The neck line should form a good curve from just above the collar bone in the center front around the base of the neck to the prominent bone at the back. The curve should be higher in the back and sides than in the front. There are good neck-lines for all types and a careful study should be made of them (page 81).



FRONT

Location of Bust Line (Figure 215). — To establish the bust line, place a tape around the fullest part of the bust and keep it straight across in the back. The tape should be loose enough so that three fingers may be slipped underneath it.



BACK

FIGURE 215

48. Sleeves and Pockets. *Armseye Curve; Location of Sleeves* (Figure 216). — The establishing of a good armseye is the brand of a well-made garment. The lines

should be established to form a good curve over the top of the shoulder and should come over the highest point of the shoulder bone or where the arm joins the shoulder; then dropped down in a straight line for three or four inches as shown in (I).

When this line is established, the arms should be crossed so that the finger tips are just touching the shoulder bones. (On the average figure this line is the top fourth in the back of the armseye and is parallel to the center back.) The line is then extended under the arm in a perfect oval curve, continued to swing towards the front, and on up to the shoulder seam. Pin a tape securely around the armseye and in far enough so that the

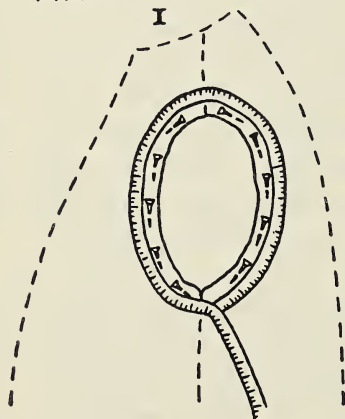
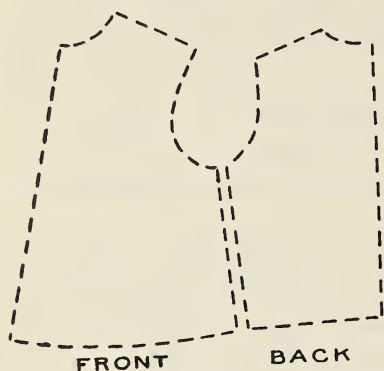


FIGURE 216

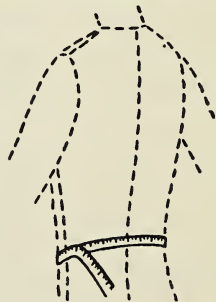


FIGURE 217

outer edge of the tape will form the shape shown in (II). Weave in pins around the outer edge of tape, and carefully run bastings around the established pin line before removing the pins. Cut away the excess fabric, allowing $\frac{1}{2}$ inch for the seam line.

Location of Waistline (Figure 217). — To establish the waistline, place a tape snugly around the smallest part of the body so that three fingers may be easily slipped under the tape.

Location of Hip Line (Figure 218). — To establish the hip line, place and pin a tape around the small part of the waist and measure down to the largest part of the hips as indicated by arrows in the figure. Measure the same distance down from the center back and sides, and weave in pins. The row of pins indicates the hip line and should be parallel to the waistline.

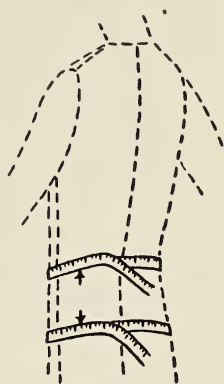


FIGURE 218

To Locate Hem Line. — To establish the placement of the hem line see page 64.

To Locate Placement of Pockets. — To establish the placement of pockets see page 104.

2. HOW TO ALTER PATTERNS

Patterns that have not been previously used should be carefully fitted, and the adjusted pattern cut from old or inexpensive fabric before the final cutting of the garment.

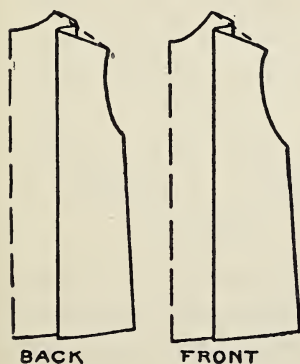


FIGURE 219

49. Waists. *Waist That Is Too Wide* (Figure 219). — To alter a waist pattern that is too wide in both the front and back, lay a fold from the center of the shoulder line to the lower edge of the pattern, keeping it parallel with the center front and back. To take up the excess width, correct the shoulder line.

Waist That Is Too Narrow (Figure 220). — To alter a waist pattern that is too narrow cut both the front and back from the center of the shoulder line to the lower edge of the pattern, keeping the cut line parallel with the center front and back. Separate each piece to allow for the width needed. Correct the shoulder line.

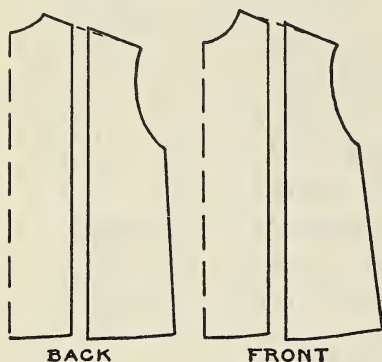


FIGURE 220

Waist That Is Too Long (Figure 221). — To alter a waist pattern that is too long, lay a fold below the armseye across both the front and back to take up the excess length.

Waist That Is Too Short (Figure 222). — To alter a waist pattern that is too short, cut below the armseye across the front and back. Separate each piece enough to allow for the length needed.

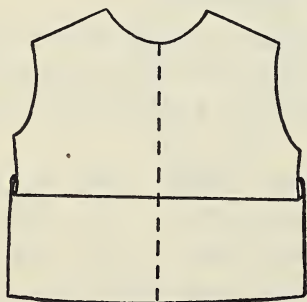


FIGURE 221

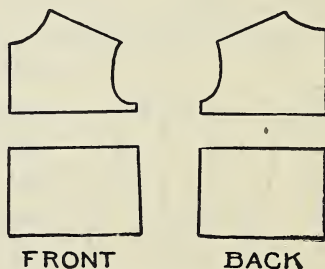


FIGURE 222

Waist That Wrinkles under the Arm (Figure 223). — To alter such a pattern, pin a deeper seam at the armseye at the shoulder seam, tapering toward the neck line. If wrinkles are only in front, the fullness may be taken out by darts (page 46).



FIGURE 223

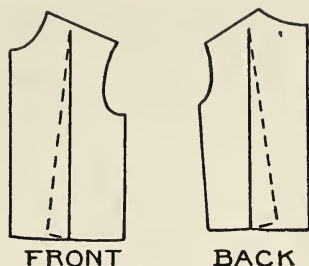


FIGURE 224

50. Bust. *Flat-Busted Figure* (Figure 224). — To alter a pattern for the flat-busted figure, slash a line to within $\frac{1}{2}$ inch of the shoulder line, beginning at the lower edge of the pattern. Keep the slashed line parallel with the center front of the pattern. Lap the pieces to take up the excess fullness.

Full-Busted Figure (Figure 225). — To alter a pattern for the full-busted figure, slash a line to within $\frac{1}{2}$ inch of the shoulder line beginning at the lower edge of the pattern. Keep the slashed line parallel with the center front of the pattern. If the bust is very full, it may be necessary to allow for extra length. To do this, cut at the fullest part of the bust from the center front to the first slash. Then slash the other piece diagonally to within $\frac{1}{2}$ inch of the armseye.

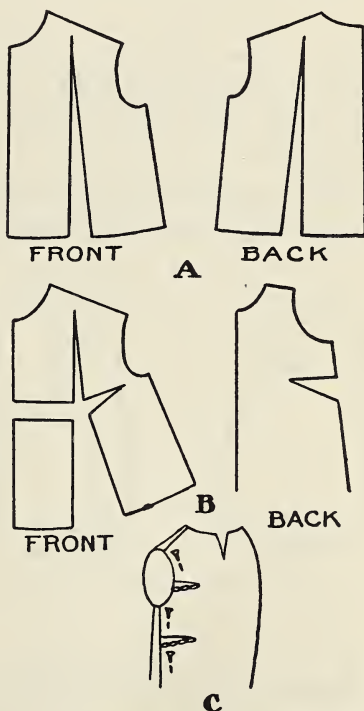


FIGURE 225

Spread the pieces of the pattern to allow for the width and length needed.

To alter a pattern in allowing for darts for the full-busted figure, slash the pattern upward toward the fullest part of the

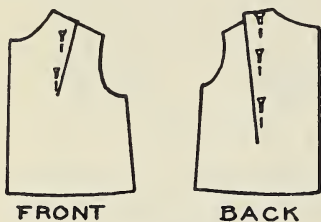


FIGURE 226

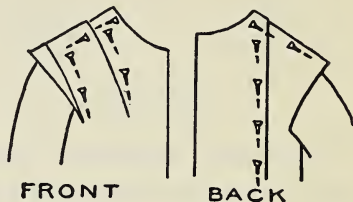


FIGURE 227

bust. (For placement of darts see page 222.) Spread the slash to allow for the dart. If more fullness is desired at the bust line, tiny darts may be placed at the lower part of the armseye.

Wide Shoulders and Flat Bust (Figure 226). — To alter the shoulder line that is too wide for the flat-busted figure, lay a fold in both front and back at the shoulder, tapering the fold until the pattern lies flat.

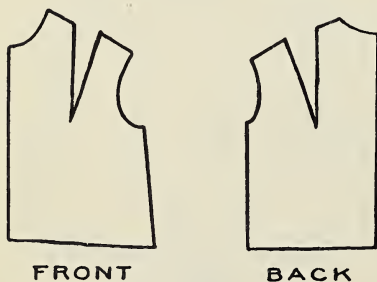


FIGURE 228

Wide Shoulders and Full Bust (Figure 227). — To alter the shoulder line that is too wide for the full-busted figure, lay a deep fold in the form of a dart in the front of the pattern from the shoulder to the bust line.

(For placement of darts see page 222.) This will bring the armseye too high and a piece should be added at the shoulder of the armseye.

If the back is too wide, it may be taken up with a plait from the center of the shoulder line to the lower edge of the pattern, keeping the plait parallel with the center back of the pattern.

51. Shoulders. *Narrow Shoulders* (Figure 228). — To alter a shoulder line that is too narrow, slash the front and back from the center of the shoulder to the bust line and spread apart to allow for the width needed.

Round Shoulders (Figure 229). — To alter a pattern for round shoulders, slash the back of the pattern crosswise at the shoulder line. Spread the slash to allow for

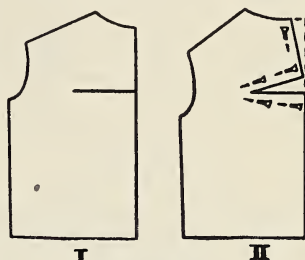


FIGURE 229

the extra room needed across the shoulders. Straighten the center back edge. This added amount in the center back will make the neck line larger. The extra fullness at the neck is

essential for this type of figure and may be fitted at the neck line with tucks, gathers, or darts.

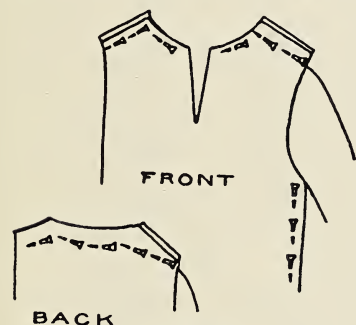


FIGURE 230

Square Shoulders (Figure 230). —

To alter a pattern for square shoulders, raise the pattern at center front and back. The shoulder seam at the armseye is left the same, and the seam at the neck line is raised until the pattern hangs evenly on the

figure. This will make the seam wider at the neck line than at the armseye. A new neck line must be established (page 223).

The Sloping Shoulders (Figure 231). — To alter a pattern for sloping shoulders, raise the pattern at the armseye. The pattern

at the neck line is left the same, and the seam at the armseye is raised until the pattern hangs evenly on the figure. This will make the old armseye smaller and therefore a new one must be established (page 224).

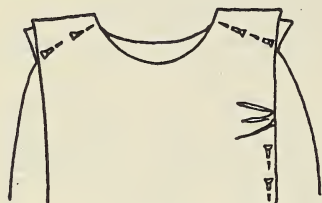


FIGURE 231

52. Figures. *Over-Erect Figure* (Figure 232). — To alter a pattern for the over-erect figure, lift the back of the pattern at the shoulders.

If this is not enough to make the pattern hang smoothly on the figure, lift the pattern at the back at the waistline until the pattern does hang smoothly (B). The pattern adjustment at the shoulder seam will make it necessary to establish a new armseye (page 224) and neck line (page 223).

Sway-Back Figure (Figure 233). — To alter a pattern for the sway-back figure, the pattern should be adjusted to conceal the hollow at the waistline. Gathers, at the bottom of the waist and the top of the skirt at the waistline, and

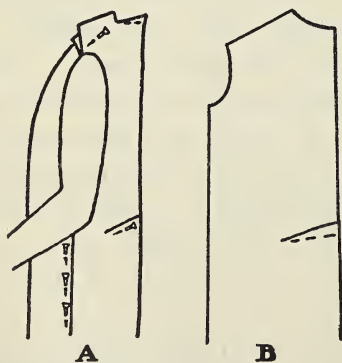


FIGURE 232

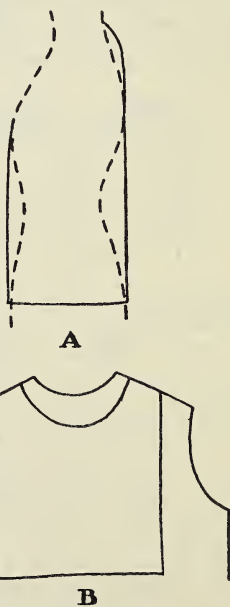


FIGURE 233

jacket effects tend to modify this characteristic. Belts worn at the hip line are better than those worn at the waistline.

The modification will depend upon whether the sway is high or low. A drop-lining strip in the back fastened at the shoulder seams and waistline to hold the skirt up in place is very satisfactory (B). The outer belt may be made larger and held in place by tacking it on the outside along the bottom of the lining.

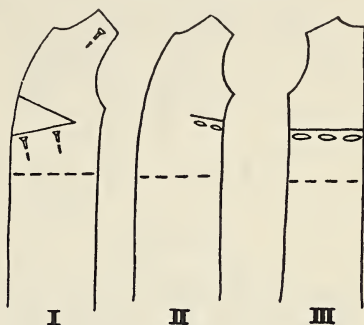


FIGURE 234

Flat Back and Large Bust (Figure 234). — To alter a pattern for the flat-backed figure with large bust, slash the front of the pattern crosswise at the bust line. Spread the slash enough to bring the waistline of the pattern to the normal waistline in the center front (I). Straighten the center front line of the pattern. Pin a dart (page 46) at the underarm seam to raise the pattern to the normal waistline at the side (II). Pin a horizontal plait in the back of the pattern (III). If it is necessary to make the plait larger in the center back than at the sides, cut across the back between the armseyes and make a yoke by lapping the pattern to adjust the back to the normal waistline.

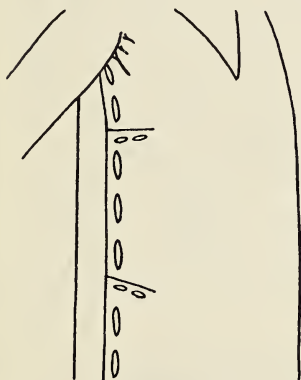


FIGURE 235

The Large Abdomen (Figure 235). — To alter a pattern for the figure with large abdomen, the excess fullness may be smoothed into small darts at the hip line or underarm, depending upon

whether the garment is a one- or two-piece garment (page 222). Darts at waistline or hips should slant downward. Pin darts from the seam line inward.

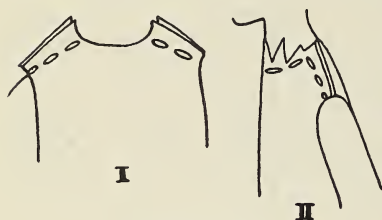


FIGURE 236

Flat Chest (Figure 236). — To alter a pattern for the flat-chested figure, take up the shoulder seam in the front at the neck line and taper the seam to the armseye (I). The neck line in front should be

clipped (II) and a new neck line established (page 223). If the shoulders are sloping, the pattern will also have to be taken up at the armseye and a new armseye established (page 224).

53. Neck. *Large Neck* (Figure 237). — To alter a pattern that is too large at the neck line, take up the shoulder seam at

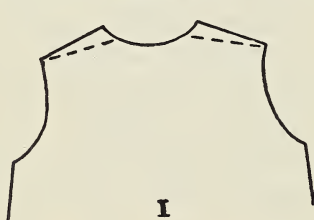


FIGURE 237

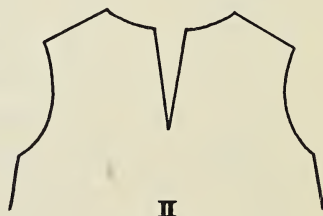
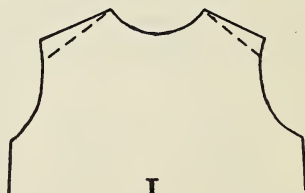


FIGURE 238

the neck line. If the neck line is still too large, small darts may be placed in the center front and back of the pattern.

Small Neck (Figure 238). — To alter the pattern that is too small at the neck line, spread the shoulder seam at the neck line,

and, if necessary, make slashes at the center front and back of the waist.

Low Neck (Figure 239). — To alter a pattern that is too low



FIGURE 239



FIGURE 240

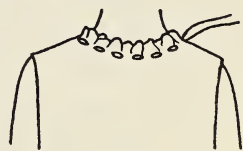
in the neck line, pin a piece of paper at the neck line. Clip the edge of the paper at the neck line, and turn under the clipped edges until the desired neck line is found.

Trim evenly.

High Neck (Figure 240). — To alter a pattern that is too high in the neck line, clip the edge of the pattern at the neck line, and turn under the clipped edges until the desired neck line is found. Trim the clipped edge evenly.



A



B

FIGURE 241

Neck Line That Bulges at Back or Front (Figure 241). — To alter the pattern in which the neck line bulges, raise the pattern at the shoulder seams and establish a new shoulder seam and armseye (A). If the bulge is small, it may be eased into the neck finish by running a gathering thread around the neck line and shrinking out the fullness (B).



A

B

FIGURE 242

Shoulder Seam That Slides toward Back (Figure 242). — To alter a pattern that slides toward

the back establish a correct shoulder and underarm line. This will balance the front and back of the pattern.

The fault in the pattern may be that the neck line is too large.

Adjust the pattern for too large a neck line (Figure 237).



FIGURE 243

Fleshy Neck and Shoulders (Figure 243). — For the fleshy neck and shoulders alter the pattern between the armseyes to within one inch of each armseye. Spread the slash the needed width and straighten the pattern at the center back. The fullness this adds to the neck line allows for the fullness needed.

Slender, Flat Back (Figure 244). — For the slender, flat back, alter the pattern by raising the shoulder line in the back at the neck line and tapering it to the armseye. Trim out the back of the neck the desired shape.

54. Collars. *The Too-Large Collar* (Figure 245). — To alter a collar pattern that is too large at the neck line, take tiny dart tucks in the center back and at equal distances from the center back until the collar is the correct size at the neck line. This affects the neck line only.



FIGURE 244

The Too-Small Collar (Figure 246). — To alter a collar pattern that is too small at the neck line, make a tiny slash at the center



FIGURE 245



FIGURE 246

back and at equal distances from the center back. Spread until the collar is the correct size. This affects the neck line only.

The Too-Long Collar (Figure 247). — To alter a collar pattern that is too long, make small folds in the collar in the center back



FIGURE 247



FIGURE 248

and at equal distances from the center back to the front until the collar is the correct size.

The Too-Short Collar (Figure 248). — To alter a collar pattern that is too short, cut the collar in the center back and at equal

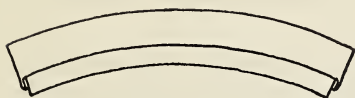


FIGURE 249

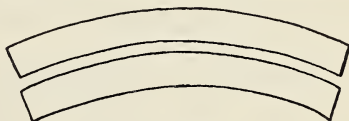
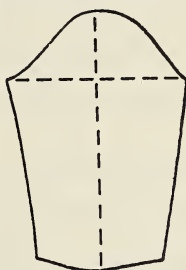


FIGURE 250

distances from the center back to the front and spread the pattern until the collar is the correct size.

The Too-Wide Collar (Figure 249). — To alter a collar pattern that is too wide, cut the pattern lengthwise through the center and lap the pieces until the collar is the desired width. Reshape the ends of the collar.

The Too-Narrow Collar (Figure 250). — To alter a collar pattern that is too narrow, cut the pattern lengthwise through the center and spread the pieces until the collar is the desired width. Reshape the ends of the collar.



I



II

55. Sleeves. *Wrinkles from Top of Sleeve Pattern to Elbow*

FIGURE 251

(Figure 251). — To alter the sleeve pattern that wrinkles from the top of the sleeve to the elbow, the sleeve cap, from the top

of the shoulder to the level of the armpit, must be enlarged to correspond to the top of the arm. To cut the cap larger at the top of the sleeve pattern, slash lengthwise through the center parallel to the seam line. Slash crosswise to within one inch of the sleeve seam at

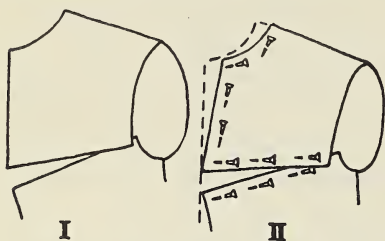


FIGURE 252

the armseye. Raise the sleeve cap the necessary amount to fit the top of the arm.

Wrinkles at Armpit (Figure 252). — To alter a pattern that wrinkles at the armpit, cut both the front and the back of the pattern between the armseyes. Lap the pattern at the armseye (I), take out this fullness, and let it spread a little at center front and back. Pin paper under the slash and straighten the center front and center back line (II). It is very necessary to build up the neck line at the shoulder. Retrim the armseye at the shoulder (page 224).

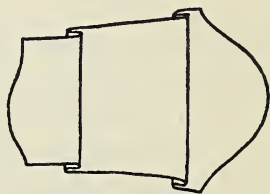


FIGURE 253

The Too-Long Sleeve (Figure 253). — To alter a sleeve pattern that is too long, cut the pattern midway between the wrist and elbow, and between the elbow and shoulder. Lap the pieces until the sleeve is the correct length.

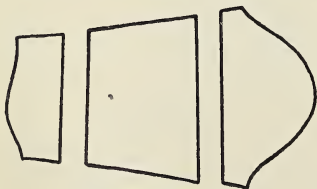
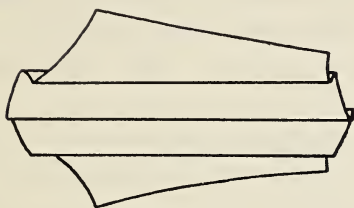


FIGURE 254

The Too-Short Sleeve (Figure 254). — To alter a sleeve pattern that is too short, cut the pattern midway between the wrist and elbow and

between the elbow and shoulder. Spread the pieces until the sleeve is the correct length.

The Too-Wide Sleeve (Figure 255). — To alter a sleeve pattern that is too wide, cut the pattern lengthwise through the center



• FIGURE 255

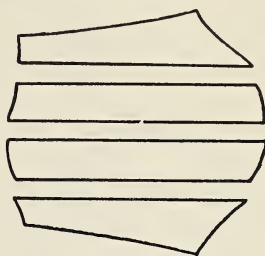


FIGURE 256

and again between the center and the seam lines. Lap the pieces until the sleeve is the correct width.

The Too-Narrow Sleeve (Figure 256). — To alter a sleeve pattern that is too narrow, cut the pattern lengthwise through the center and again between the center and the seam lines. Spread the pieces until the sleeve is the correct width.



FIGURE 257

The Sleeve That Puffs at Top (Figure 257). — To alter a sleeve pattern that puffs at the top, cut off a seam allowance around the cap of the sleeve. This will take the puff out of the top of the sleeve.



FIGURE 258

Sleeve That Puffs at Front or Back (Figure 258). — To alter a sleeve pattern that puffs at either the front or back, cut off a seam allowance at either the front or back of the sleeve.

Sleeve Which Wrinkles from Armpit to Elbow (Figure 259). — To alter a sleeve pattern that wrinkles from the armpit to the elbow,

cut off a seam allowance on the lower half of the sleeve. This will raise the pattern at the armpit, removing the wrinkles.



FIGURE 259

Sleeve Which Wrinkles around Upper Arm (Figure 260). — To alter a sleeve pattern that wrinkles around the upper arm, cut off a seam allowance from the lower half of the armseye, both on the waist and sleeve.

Sleeve That Is Too Small around Armseye (Figure 261). — To alter a sleeve pattern which is too small around the armseye, allow for a larger seam above the elbow or set in a gusset (Figure 103) from the armseye to the elbow.



FIGURE 260

The Too-Small Armseye and Top of Sleeve (Figure 262). — To alter a sleeve pattern in which the armseye and top part of the sleeve are both too small, cut the pattern to fit at the lower half of the armseye (I). The same amount that is cut from the waist at the armseye should be allowed at the lower

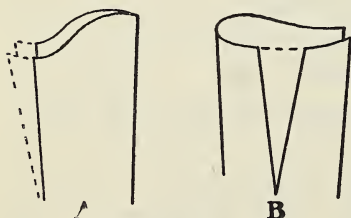


FIGURE 261

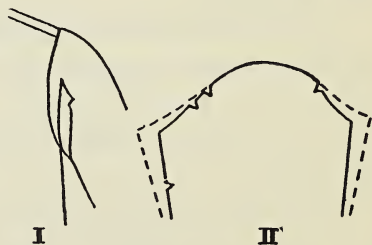


FIGURE 262

half of the top of the sleeve. Place a piece of paper under the sleeve pattern and allow at the lower half of the top of the sleeve the amount that was cut from the waist. Allow the necessary

width and taper to the elbow (II). If the width is unusual, taper to the wrist instead of the elbow.

Amount Trimmed Off on Armseye at Shoulder Allowed at Top of Sleeve (Figure 263). — To alter a sleeve pattern to fit an armseye that has been trimmed at the top, place a piece of paper under the top of the sleeve and add the amount that has been trimmed from the armseye to the top of the sleeve, using the cut portion as a gage. This will prevent the sleeve from drawing at the armseye.

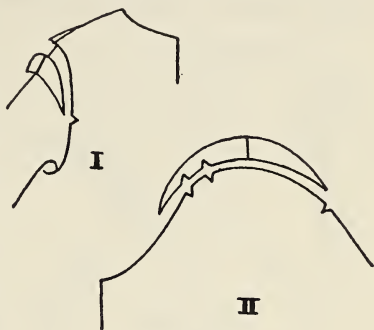


FIGURE 263

Amount Trimmed Off in Front on Armseye Allowed in Front of Sleeve (Figure 264). — To alter a sleeve pattern when the armseye in the waist has been trimmed in the front, place a piece of paper under the sides of the top of the sleeve, and, using the cut portion as a gage, add the amount that has been trimmed from the armseye of the waist to the front top of the sleeve.

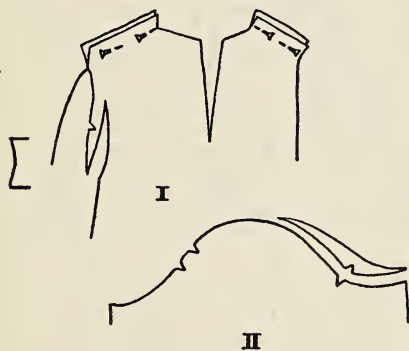


FIGURE 264

Amount Trimmed Off at Back on Armseye Allowed at Back of Sleeve (Figure 265). — To alter a sleeve

pattern when the armseye in the waist has been trimmed in the back, place a piece of paper under the sides of the top of the sleeve, and, using the cut portion as a gage, add the

amount that has been trimmed from the armseye of the waist to the back top of the sleeve.

Top of Sleeve Is Enlarged When Shoulder Seam Is Let Out (Figure 266). — To alter a sleeve pattern when the shoulder seam

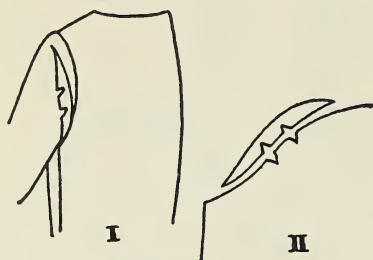


FIGURE 265

has been let out, slash diagonally both the front and the back of the top of the sleeve, beginning midway between the center and seam and slashing to the elbow, taking care not to cut the piece out. Place a piece of paper under the sleeve and spread each slash one half the amount let out on the shoulder seam.

Top of Sleeve Is Made Smaller When Shoulder Seam Is Taken Up (Figure 267). — To alter a sleeve pattern when the shoulder seam has been taken up, slash diagonally both the front and back

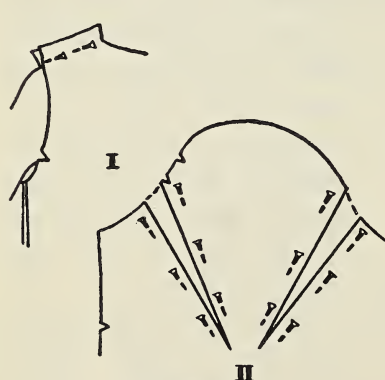


FIGURE 266

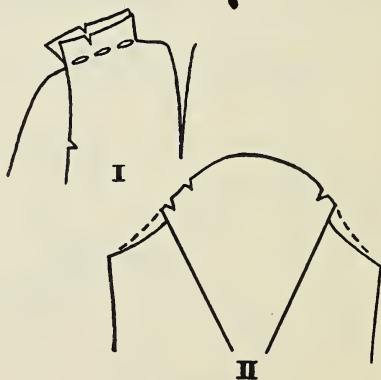


FIGURE 267

of the top of the sleeve, beginning midway between the center and the seam and slashing to the elbow, taking care not to cut the piece out. Lap each slash one half the amount taken up in the

shoulder seam. Even the top of the sleeve by tapering the seam line.

Sleeve That Draws at Top and Twists Around (Figure 268). — To alter a sleeve pattern to prevent sleeves from drawing at the top and twisting around, slash the back of the sleeve crosswise two inches below the armseye to within three inches of the other

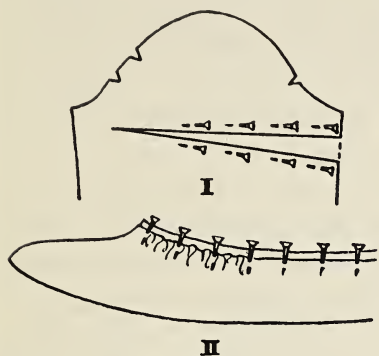


FIGURE 268

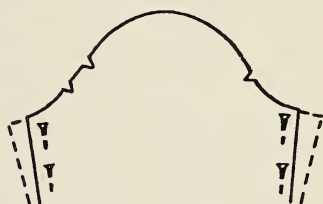


FIGURE 269

side. Spread the slash to allow for the necessary amount. Two inches is usually sufficient. This fullness may then be held in the seam along the upper part of the sleeve (II).

Medium Upper Arm (Figure 269). — To alter a sleeve pattern for a medium upper arm where a little extra fullness is needed above the elbow, place a piece of paper at the side of each seam line above the elbow. Add the necessary amount without changing the line at the top of the sleeve.

Large Upper Arm (Figure 270). — To alter a sleeve pattern for an arm that is large above but not at the elbow, fold the sleeve lengthwise and, starting on the fold at the elbow, slash crosswise to within two inches of the seam line. Unfold the sleeve and cut from the

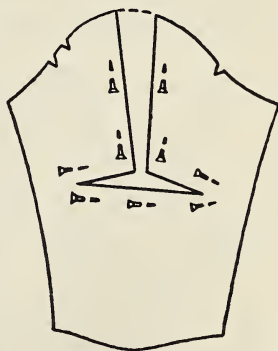


FIGURE 270

center fold at the top of the sleeve to the slash at the elbow. Spread the slashes to allow for the necessary amount.

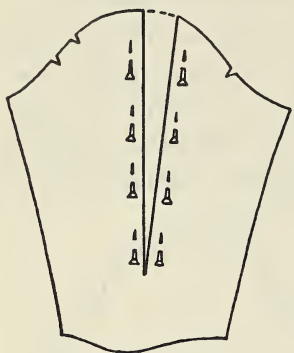


FIGURE 271

Large Arm (Figure 271). — To alter a sleeve pattern for a large arm, slash the sleeve lengthwise through the center to within six inches of the bottom of the sleeve. Spread the slash to allow for the necessary amount.

Sleeve That Twists around Arm (Figure 272). — To alter a sleeve pattern that twists around the arm, extra fullness must be allowed at the back of the sleeve at the elbow,

spreading the slashes to allow for the fullness. This will allow the sleeve to follow the shape of the arm.

Sometimes sleeve patterns do not need alteration if they pull back or set too far forward, because the fault lies in the fact that they have not been set in correctly. To avoid this, set the sleeve in with the threads running vertically and horizontally (page 90).



FIGURE 272



FRONT BACK

FIGURE 273

56. Cuffs. — Cuff patterns are altered in the same manner as collars (pages 234, 235).

57. Waistlines. *The Too-Large Waistline* (Figure 273). — To alter a waistline that is too large, turn back the edge of the pattern at the waistline on all skirt pieces, tapering to the hem line of the

skirt. When the skirt is too large above the hip line, the fullness may be taken in by darts (page 46).

The Too-Small Waistline (Figure 274). — To alter a waistline that is too small, allow enough on all edges of the pattern at the waistline to enlarge the waistline the necessary amount. Taper to the hem line of the skirt.

58. Hips. *The Too-Large Hip Line* (Figure 275). — To alter a pattern that is too large at the hips, slash both the front and back of the pattern, beginning at the lower edge and continue to a little above the waistline. Lap each slash one fourth of the necessary amount to be allowed.

The Too-Small Hip Line (Figure 276). — To alter a

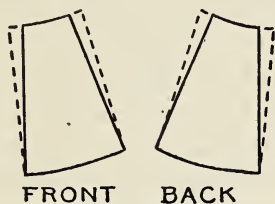
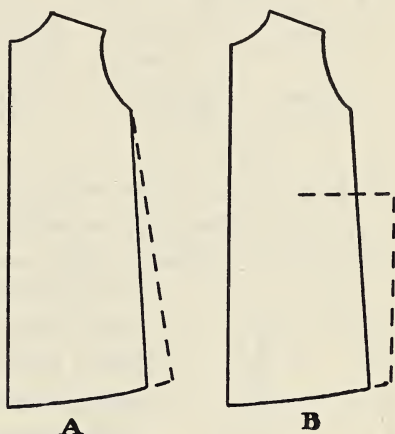


FIGURE 274



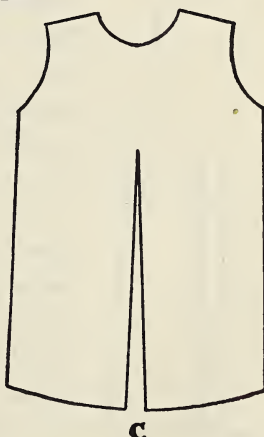
A

B



I

II



C

FIGURE 275

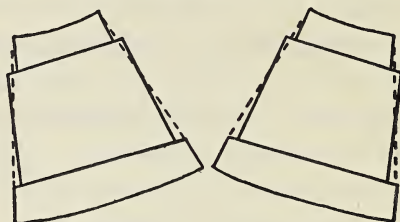
FIGURE 276

pattern that is too small at the hips, one of three methods may be used. First, one fourth of the extra width may be added at the seam line of both front and back, tapering from the armseye to



FRONT BACK

FIGURE 277



FRONT BACK

FIGURE 278

the lower edge of the pattern (A). Second, an extension may be made just below the waistline to allow fullness for plaits or gathers (B). Third, a slash may be made both in the center front and the back of the pattern beginning at the hem and continuing above the waistline a few inches. Spread each slash one half the necessary amount to be allowed (C).

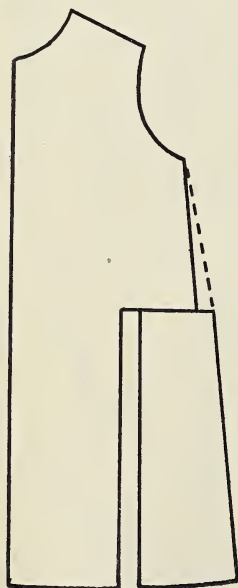


FIGURE 279

59. Skirts. *The Too-Short Skirt* (Figure 277). — To alter a skirt pattern that is too short, cut the pattern just below the hip line and six inches above the lower edge of the skirt. Spread the pieces to allow for the necessary added length.

The Too-Long Skirt (Figure 278). — To alter a skirt pattern that is too long, fold the pattern just below the hip line and six inches above the lower edge of the skirt. Lap the pieces to make the skirt the correct length.

To Allow Fullness in Skirt (Figure 279). — To alter a skirt pattern to allow

fullness, slash at regular distances from the lower edge of the skirt to within one inch of the waistline. Spread the slashes to allow for the desired fullness.

Natural Dip at Waistline (Figure 280).—To alter the top of a skirt pattern to form the natural dip at the waistline, measure down one inch on the center front fold and one-half inch at the side seams. Taper from the front

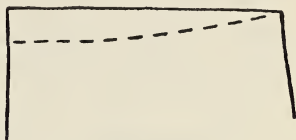


FIGURE 280

side seams to center back.

Garment That Cups In at Bottom (Figure 281).—To alter skirt patterns which cup in at the front or back, raise the skirt line at the back or front.

Garment That Cups Out at Bottom (Figure 282).—To alter the pattern which cups out in the front or back,

a dart may be laid at the waist under the belt line. The fault is that the side seam swings toward the front or back.

Seam lines which are not cut straight will have a tendency to bulge or sag. Straighten the seam lines!

60. Belts.—Belts are altered in the same manner as collars (pages 234–235).

3. DRAFTING PATTERNS

The four different kinds of patterns are: commercial, draped, blocked, and drafted.

The commercial patterns are the most commonly used because they are inexpensive and save time.

Draped patterns are made by draping and pinning the fabric on the model. Many department stores offer this service.



FIGURE 281



FIGURE 282

Blocked patterns are those that are marked on the fabric or paper by using a tested pattern.

Drafted patterns are those made by using individual measurements to make the pattern. (Often a tailor will draft a pattern for a man's shirt in this way.)

Draped Patterns (Figure 283). — These are extensively used by designers for creating new styles. Paper may be used to drape on the model. A knowledge of establishing correct seam lines must be carefully worked out before draping paper or fabric.

Collars are the easiest to drape.

61. How to Make Drafted Patterns. — Even though commercial patterns are so inexpensive and easily obtained, there

is much to be said in favor of the drafting of patterns when the method given is easy and simple to use. It teaches the importance of complete accuracy in taking measurements in dress-making, as well as in the drafting itself. It also teaches the fundamental seam lines of the figure, and gives a thorough knowledge of the use of a foundation pattern and its many variations. Through this knowledge one may learn to draft patterns for unusual figures where a commercial pattern would have to be altered.

The drafting of patterns necessitates the taking of careful and accurate individual measurements.

Taking Measurements (page 196). — The habit of accuracy in drafting and cutting is absolutely essential as the first requisite in drafting patterns. The fitted pattern which is the foundation pattern for making variations does not allow for any full-

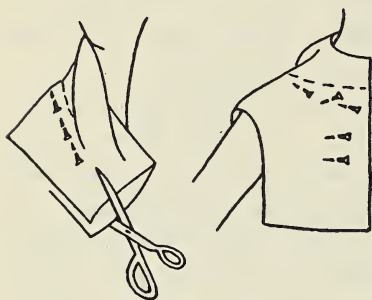


FIGURE 283

ness. After patterns are drafted, mark with a straight line the way the pattern should be placed on the fabric, so that the line of marking will be parallel with the warp thread.

The Fitted Waist (Figure 284).—To draft a fitted waist pattern the following measurements should be taken: neck,

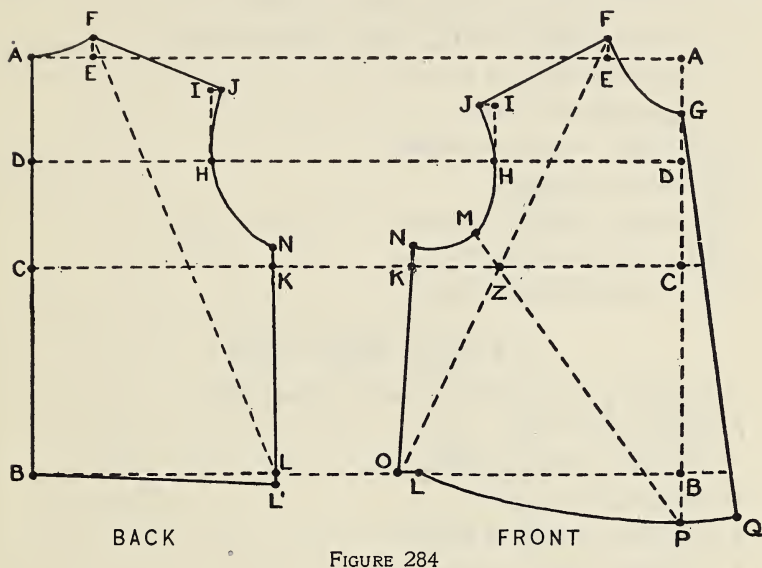


FIGURE 284

waist, bust, width of front and back, length of front and back, and length of underarm and shoulder.

Allow three inches or more on all sides of rectangle.

The bust measure equals the length (AA) of rectangle.

The back measure equals the width (AB) of rectangle.

a. Back of Fitted Waist

AB equals length of back.

C is the middle point of AB .

D is the middle point of AC .

AE equals $\frac{1}{6}$ of neck measure.

F is $\frac{3}{4}$ inch above *E*.

AF equals neck curve.

DH equals $\frac{1}{2}$ width of back.

CK equals $\frac{1}{4}$ bust measure.

BL equals $\frac{1}{4}$ waist measure plus two inches.

HI, perpendicular to *DH*, equals *AE* plus $\frac{1}{2}$ inch.

J is $\frac{1}{4}$ inch to right of *I*.

FJ equals shoulder line.

LL' is $\frac{1}{4}$ inch extension to *KL*.

BL' equals waistline.

L'N equals underarm measure (*L'K* plus $\frac{1}{2}$ inch).

NHJ equals armseye curve.

FL is a construction line.

b. Front of Fitted Waist

AE equals $\frac{1}{6}$ neck measure plus $\frac{3}{8}$ of an inch.

F is $\frac{1}{2}$ inch above *E*.

AG equals $\frac{1}{6}$ neck measure.

FG equals neck curve.

DH equals $\frac{1}{2}$ width of front.

KC equals $\frac{1}{4}$ bust measure.

HI, perpendicular to *DH*, equals $\frac{1}{2}$ of *DA* plus $\frac{1}{4}$ inch.

J is $\frac{1}{4}$ inch to left of *I*.

FJ equals shoulder line.

BL equals *CK*.

O is $\frac{1}{2}$ inch to left of *L*.

ON equals underarm measure (*OK* plus $\frac{1}{2}$ inch, plus the width of the dart, *O* being dropped for this amount).

GP equals front line.

OLPQ equals the waistline in front.

FO is a construction line.

Z equals point of intersection on *KC*.

PZ is a construction line.

ZM equals $1\frac{1}{4}$ inch extension to *PZ*.

NMHJ equals armseye curve.

To add a dart or lift to the drafted pattern, locate the point of the bust on the pattern by holding the fitted pattern carefully to the model and mark this point (see Location of Darts, pages 222, 223). Draw from the seam line to the marked point. Slash on the marked line and spread pattern apart for the desired fullness needed.

c. Fitted Sleeve

Sleeve (Figure 285). — To draft a foundation sleeve, the following measurements should be taken: length, width or girth, hand, and armseye.

AX equals construction line on fold of paper (the sleeve length, plus five inches).

AD equals $\frac{1}{4}$ armseye plus two inches.

DC equals inside length of sleeve.

DK equals $\frac{1}{2}$ girth of arm plus one inch.

F is $\frac{1}{2}$ inch to left of *K*.

AF is a construction line.

Z is the middle point of *AF*.

ZH is perpendicular to *AF* intersecting *DF* at *S*.

ZM equals $\frac{1}{2}$ *ZA*.

L is $\frac{1}{2}$ inch above *M* constructed at right angles to *ZA* at *M*.

ZO equals $\frac{1}{2}$ *ZF*.

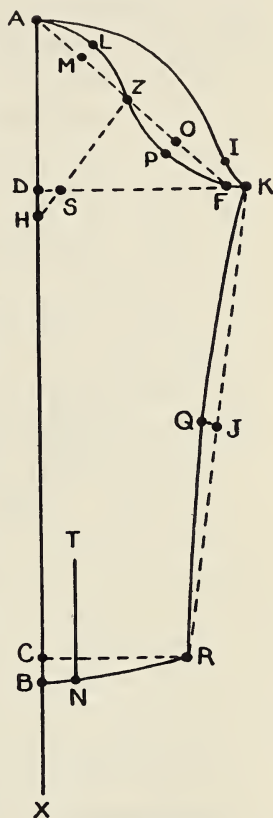


FIGURE 285

P is $\frac{1}{2}$ inch below *O*, on a line at right angles to *ZF* at *O*.

ALZPFK equals lower curve at top of sleeve.

Using *H* as a pivot and *HA* as a radius, swing the curve *AF*.

I is 1 inch above *F*, on a line perpendicular to *SK* at *F*.

IK equals part of top curve.

KIA equals upper curve at top of sleeve.

CR equals $\frac{1}{2}$ hand (fist) measure plus $\frac{1}{2}$ inch (or allowance for whatever fullness is desired).

B is $\frac{3}{4}$ inch down from *C*.

N equals 1 inch to right of *B*. Construct *NR*.

BNR equals bottom of sleeve.

TN equals four inches and is constructed at *N*, at right angles to *CR*. (Cuff opening is in line with little finger.)

Construct *RK*.

J is midway between *R* and *K* (distance between wrist and elbow joint).

Q is $\frac{1}{2}$ inch left of *J*.

RQK equals inside line of sleeve. With paper folded, cut around top curve *AIK*, down side *KQR*, then across bottom *RNB*. Unfold sleeve and cut lower curve at top of sleeve *ALZPFK*.

Fitted sleeves, after drafting, should be altered at the elbow to allow for fullness so that the sleeve will not bind but give ease when moved. On the underside of the sleeve pattern at *Q*, measure a half inch to each side, slash perpendicular to the fold and spread the pattern the width of the desired fullness. This fullness may be held in with gathers, folds, or darts.

Foundation Collars (Figures 286, 287). — For the flat foundation collar, the foundation waist pattern should be used. Place the shoulder lines of the waist together at the neck line and spread $\frac{1}{2}$ inch at the armseye. Cut the neck line of the collar the same as that of the waist. The outer edge of the collar may be shaped in any desired design. When the collar extends beyond the

shoulder seam, the back and front are balanced by keeping the point in line with the shoulder seam line.

Flared collars are made by slashing the outer edge of the flat collar pattern at intervals and spreading apart to allow for the desired flare.

To make a rolled collar, the foundation waist pattern is lapped at the armseye instead of spread apart (Figure 287). A one-inch lap is usually sufficient for the roll.

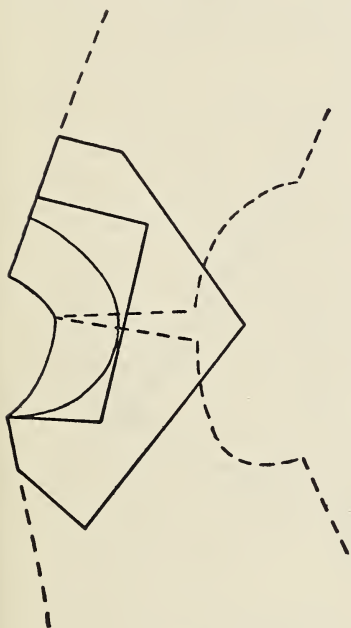


FIGURE 286

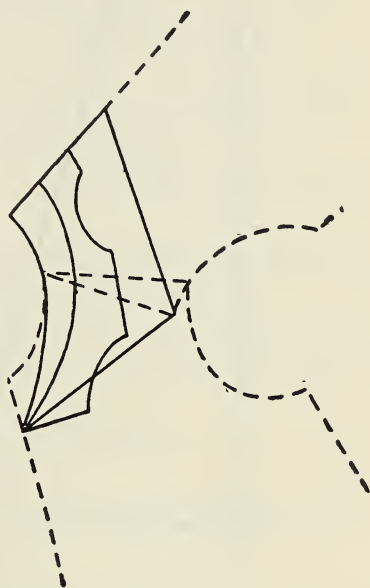


FIGURE 287

The Foundation Cuff. — To make a foundation cuff, the hand measure is used for the bottom of the cuff. The top of the cuff may be made in any shape, but should correspond in design with the collar, except that the cuff designs are smaller. The cuff may be of any width, and if the flare cuff is desired, slash the outer

edge of the foundation pattern at intervals and spread the pattern to allow for the flare.

Two-Piece Fitted Skirt (Figure 288). — The following measurements should be taken to draft a foundation skirt pattern: waist, hip, length of front, sides, and back (to be taken from the

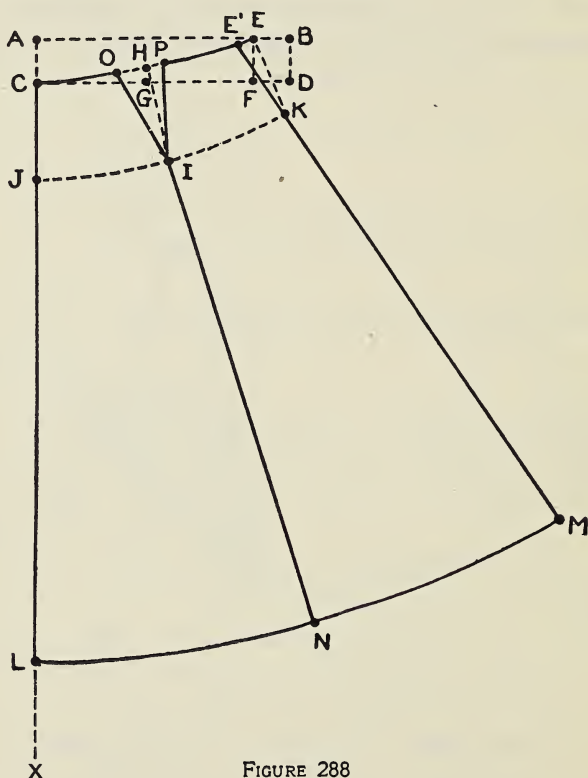


FIGURE 288

waistline to the floor). The desired skirt length should be deducted from the above skirt measurements and used when drafting patterns.

Skirts should be designed in keeping with the waist. Remember that gores have a tendency to slenderize the figure.

AX equals a line of indefinite length.

AB is constructed at right angles to *AX*.

AB equals $\frac{1}{2}$ the hip measure.

AC equals $\frac{1}{10}$ of $\frac{1}{2}$ of the width of the bottom of the skirt.

The most satisfactory skirt width for the average figure is one and four-fifths times the hip measure.

ABCD makes the complete rectangle.

BE equals $\frac{1}{8}$ of $\frac{1}{2}$ of the width of the bottom of the skirt.

EF equals *BD* (*EF* constructed parallel to *BD*).

G is the middle point of *CF*. (Construct line perpendicular to *CF* at *G*.)

GH equals the difference between the front and side length measurements. *H* is on a perpendicular intersecting at *G*.

COHPE'E equals the top of the skirt waistline.

HI equals the length of dart. Drop dart line seven inches from *H* on hip curve.

CJ equals dart measure less the difference between the front and sides. *CJ* measures from six to nine inches.

EK equals *CJ* or dart measure. Construct lower hip line *JK* parallel to top of skirt line *CHE*. *I* is midway between *J* and *K*. Connect *I* and *H*.

OHP equals width of the dart at the waistline.

HO equals two inches to left of *H*.

HP equals one inch to right of *H*. Construct *OI* and *PI* to meet at *I*.

OIP equals amount allowed for dart.

CO plus *PE'* equals $\frac{1}{2}$ of waist measure (*E'* may come at any point between *P* and *E* or beyond *E*).

Connect *E'K*.

E'M equals back of skirt length and must pass through *K*.

CL equals the length of skirt front.

Construct line *LM* parallel to hip line *JK*.

N is constructed midway between *L* and *M*.

Connect *I* and *N*.

OIN equals front side seam.

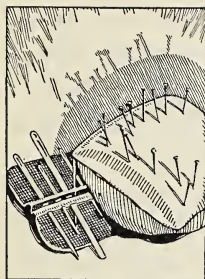
PIN equals back side seam.

The two-piece foundation skirt pattern may be made into as many gores as desired by equally dividing and sub-dividing the waist, hip, and bottom skirt lines. Flared or circular skirts may be designed by cutting at the hem line between *L* and *N*, and *N* and *M*, up to the hip line between *J* and *I*, and *I* and *K*, and the pattern then spread. The desired amount of fullness should be proportioned equally on the center front and back, side seams, and cuts.

CHAPTER X

UNDERGARMENTS

*A square of silk, a bit of lace,
A dainty ribbon here and there,
A symphony of airy grace —
This is my lady's underwear.*



UNDERGARMENTS should be chosen with as much care as outer garments. They should be made to fit the body as closely as possible and still allow ease, except in the case of slips worn with dresses that need excess fullness for support. The style should be plain, neat, and comfortable to wear. Simple stitches and patterns are much more effective than elaborate ones. Dainti-

ness, simplicity, and good material should be the watchwords in undergarments. Choose medium weight, washable material, either knitted or woven. The colors should be dainty and fast, such as flesh, cream, or white.

62. General Directions. — Home-made underwear may be made as beautiful as that which is ready-made if one has the time and ability to make it so. As a rule the home-made undergarment is more economical and wears longer than the ready-made.

Seams and Edges. — The seams should be finished either with French or fell seams (Figures 76, 77), except in the case of slips, which may be finished with plain seams (Figure 75), the edges

of which are overcast, picoted, or turned under. By having finished seams, garments are stronger, neater, and daintier. The edges of undergarments may be finished by single or double hem-stitching, picoting, bias bands, facings, plain, damask, or rolled hems.

Decorative Finishes. — Decorative finishes such as laces, nets, hand embroideries, drawn work, decorative stitches, beading, and shell edge may be used. Medallions and silk flowers are often used as a decoration. Tucks, plaits, shirring, or flares should be used when extra fullness is desired.

Patterns and Measurements. — Undergarments are comparatively simple since there is little or no fitting to be done. Accurate measurements should be taken (page 196), and the pattern bought accordingly. Follow the directions for cutting (Chapter VII). There is a dainty air about handmade undergarments, but the saving of time to-day is of such great importance that the machine method is usually preferred.

63. Nightgowns. — Nightgowns may be made with or without sleeves. The sleeves may be either set-in or kimono, but an objection to the kimono sleeve is that it tears under the arm. Yokes, vestees, collars, and bands of contrasting fabrics and colors may be used for decorative effect. In cutting, both sides will be alike, the center front and back always being placed on the fold.

The seams should be made either fell or French. The neck line may be cut any desired shape (page 81), and is, as a rule, cut higher in the back than in the front. The neckline and armseye finish should correspond in design and should be in keeping with the material. Fashion dictates the length of the gowns, and the bottom may be finished with a plain or designed hem, or in accordance with the neck line finish.

64. Slips. *Cutting the Slip* (Figure 289). — The top of the slip should be cut to fit the body closely, and the bottom should be

cut wide enough to allow for ease when walking. This fullness is allowed at the hip line (about seven inches below the waist-line) (A) in a plait, even gathers, or a circular flare at the sides (C) or with a diamond-shaped bodice with upper and lower points cut on the bias (D). A straight piece of material, allowing a twelve-inch lap, may be sewed on at the hip line. The lap makes the slip shadow proof (B). Seams may be either flat, fell, or French.

Shaping the Neck Line (Figure 290). — Neck lines of slips should be carefully worked out and should never be conspicuous. Neck lines may be any shape desired, but should correspond with the neck line of the dress worn. The shaped neck line, besides being a better design, does not slip off the shoulder. This does away with the untidy habit of adjusting shoulder straps. The armseye should be in keeping with the neck line.

Finishing the Slip. — The edges and bottom of the slip may be finished with an appropriate design.

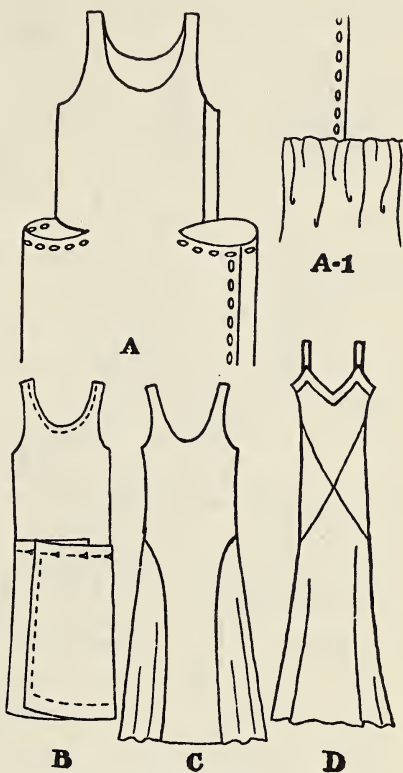


FIGURE 289



FIGURE 290

65. Teddies. *Cutting the Teddy.* — Teddies do not necessarily require a pattern. They may be made from a width and one half of fabric, depending upon the hip measure. They

should be large enough to slip over the hips with ease and, if fullness is desired, it may be inserted in the side by flares or gathers. When a width and one half is used, the half width should be used in the back.

Finishing the Teddy (Figure 291). — The seams may be either flat, fell, or French, and the last stitching may be made by hand to give a hand-made effect. The top may be straight or shaped (A-1, A-3). The straight top should have a half-inch hem and may be finished with hand hemstitching (A-2). The shaped neck line may be finished with any dainty, narrow edge. (See Neck Line Finishes, page 81.)

Straps should be attached by sewing them underneath at the hem line, in the back and on top, and on the edge in the front (B). A loop and streamer may be allowed in the front to lengthen the

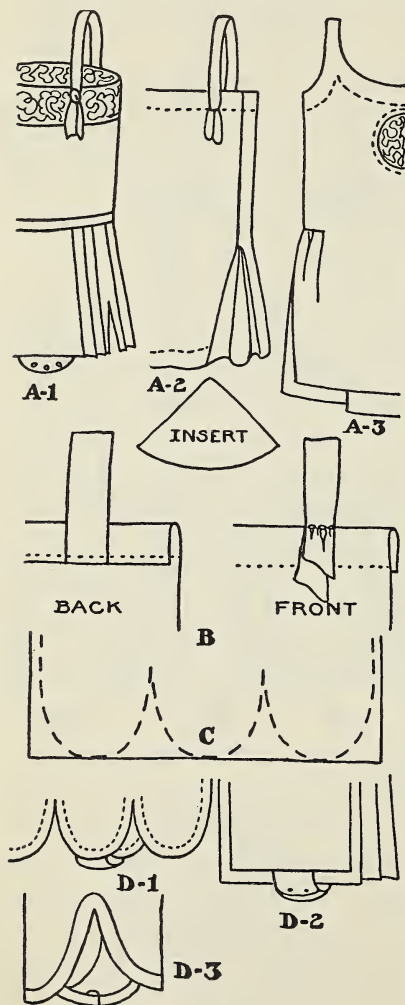


FIGURE 291

strap if desired, while at the same time it serves as decoration. A wee strip of ribbon may be sewed securely along the center of the shoulder seam of a garment, with an end left which snaps down and holds your lingerie straps in place.

The sides of the teddy should be folded evenly and shaped in a curve about eight inches in length if the straight strip is used. The bottom of the teddy should be finished in keeping with the top (C).

The straight strip that holds the bottom of the teddy together should be one inch wide and five inches long, and should be of double fabric. It may be sewed fast (D-1) or snapped (D-3) or buttoned (D-2) together in the center. The strip that is fastened in the center is more convenient to iron. A narrow strip is more satisfactory because it will not bind or pull out so easily as the wide strip. The length of the teddy, when finished, should be about five inches above the knee.

66. Bloomers. — Elizabeth Smith Miller invented the bifurcated garment which we to-day call "bloomers." The garment did not meet with approbation, except among the most radical of the women's rights advocates. Mrs. Amelia Jenks Bloomer of Seneca Falls, N. Y., who, according to the book, *Woman Suffrage*, was editor of one of the first periodicals devoted to the cause of women's rights, was enthusiastic over the startling new garment and advocated the wearing of it, nameless as it still was, in her weekly paper the *Lily*. The newspapers took up the subject and discussed it vigorously, and for want of a better name, called them "bloomers" in honor of the woman who advocated them so earnestly. The "bloomers," however, met with so hostile a reception on the part of the general public, and their wearers were so ridiculed everywhere that, after a time, the prominent suffragists who had adopted the garment began to fear that the odium attached to the dress might injure the suffrage cause. So, since their desire for the political freedom of all

women was greater than their interest in their own individual comfort, they gave up wearing the "bloomers." This experiment, according to the *History of Woman Suffrage*, in which the whole story is related, was not without a good cause. All this, then, was the forerunner of the modern knickers and bloomers which have paved the way to woman's high place in sports because they have given her a greater freedom in dress.

The first bloomers were made ankle length, while the modern bloomer comes just above the knee. The top of bloomers may be finished with a yoke, band, or elastic. Elastic should never be more than a quarter of an inch in width and should harmonize with the material of the bloomers in color. To take the measurement for elastic, place the elastic so that it fits snugly, without stretching, and so that two fingers may be easily slipped under it. Elastic bands that are too tight are injurious, as they restrict circulation. The bottom of the bloomers may be finished with bands or elastic.

The seat of bloomers should always be reënforced on the inside. Plackets are used in children's bloomers on one, or both, sides.

Decorations on bloomers should be very simple and dainty, and should harmonize with the material.

67. Pajamas (Figure 292). — Pajamas are a one-piece or a two-piece suit. In the two-piece, the top part, which is

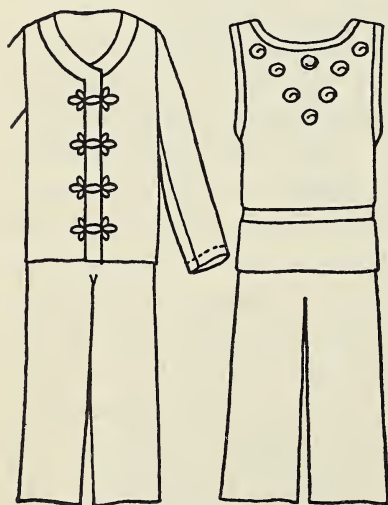


FIGURE 292

like a jacket, may be made with or without sleeves, and may be either opened or closed in the front. The bottom part is

made like bloomers except that the legs are made straight and sometimes very full, and ankle length. They are seldom gathered at the bottom. The neck, cuffs, bottom of the trousers, and front opening may be finished with self or contrasting color or fabric. The top of the trousers is finished with elastic, band, or yoke. The front of the jacket is fastened with button and buttonholes, frogs, or snaps. One-piece pajamas usually have a tie belt and fasten on the shoulder with a snap or button. Pajamas are coming constantly more and more into use for house wear.

The lounging pajama-suit is taking the place of the kimono. In this suit, the coat part may be varied in length, and the trousers made very full, so that they hang like a skirt. The whole ensemble (än'sän'bl') is much more elaborate than a suit of sleeping pajamas, for it is usually made of richer, less-easy-to-wash fabric.

68. A Note on Children's Clothes. — Children's clothes should be simple, although there are as many kinds of clothing for children as there are for adults. The size and type of the child will determine the color, texture, size, and type of the pattern and the material.

Leaflets issued by the Division of Textiles and Clothing, Bureau of Home Economics, United States Department of Agriculture, give a carefully worked-out analysis of children's clothes in relation to health, comfort, and ease in putting on and taking off.

UNIT III
THE GARMENT



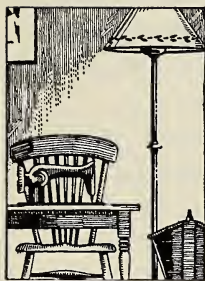
THE PARTY FROCK

CHAPTER XI

THE FINISHED GARMENT

*Dresses for breakfasts, dinners, and balls,
Dresses to sit in, and stand in, and walk in,
Dresses in which to do nothing at all ;
Dresses for winter, spring, summer, and fall.
All of them different in color and call.*

— Adapted from WILLIAM ALLEN BUTLER



ART is a creation of beauty. That is why a well-made gown is a work of art. In France, dressmaking is made a fine art and excites a general interest all over the world. The wide range of materials and textures, the ever-changing fashions resulting in varieties of style and intricacy of cut, give unlimited scope to the creative faculties of the “artist in dressmaking.” The success-

ful dressmaker combines beauty of color with beauty of line, and adds a style which we call “chic” (shēk).

Every woman is classed under one of three types, and “to do herself justice” she should dress in accordance with her type and look her best always.

The *ingenue* (ăn'zhā'nū') type is usually small and is characterized by fine, delicate features. She is sometimes referred to as the feminine type, and her dresses should be fluffy and bouffant. Pastel shades, such as pink, orchid, pale blues, and greens, are most suitable for this type.

The *athletic* type is of medium size with square shoulders and strong features. Straight-line dresses are the best for this type, and only the more simple trimmings, such as plaits, buttons, or buckles, should be used. Medium or dark shades of color are the ones most suited to this type.

The *dramatic* type is tall and slender, with striking features. She may wear dresses of extreme lines, and trimmings in dark, rich colors, bright colors, or striking combinations.

“There are no secrets in dress; there is either knowledge or lack of knowledge.” (Collins.)

1. HOW TO MAKE A DRESS FOR ANY OCCASION

Wardrobe. — In planning for a new dress, one should first consult her wardrobe to determine the kind of dress she needs, and decide from her budget the amount of money one can afford to spend (pages 216–218).

In checking the wardrobe, one may find a dress of good fabric but out of style. This dress should be remodeled instead of purchasing new fabric. Many do not enjoy a “made-over” dress as well as a new one, but by having to do this the wearer will be taught the folly of buying more clothes than are needed.

The question that is then voiced is, “Shall I make or buy my dress?” The determining factors are the amount of money and time one has to spend, one’s artistic ability, knowledge of good design, and taste. There is no gamble in the ready-to-wear dress as to the finished appearance on the wearer. Select a dress that will fit in with the color scheme of your wardrobe and one that will fill a need for more than one occasion.

There is no reason why a home-made dress, if it is constructed well and pressed as it is made, should not look as well as a ready-made dress. Use time-saving methods and never put unnecessary labor in making a dress, but strive for effect rather than perfection

in workmanship. When both qualities are obtained in a dress, namely, style and good workmanship, the triumph is complete.

Picture. — Carefully choose a picture as nearly as possible like the dress needed. Remember that simplicity is the keynote of good design. One outgrows dresses mentally as well as physically, and for this reason great care should be taken to choose pleasing lines and a suitable design (pages 158–160; 163–165). True it is that the smart costume should be a symphony of line, texture, and tone, carefully assembled.

Measurements. — After selecting the picture of the dress, take the correct measurements that are required for the pattern (pages 195–198).

Pattern. — Buy the pattern in the size that is designated by your measurements, unless there is irregularity of the figure. The type of figure, style, and material to be used influence the selection. Beware of choosing young designs, thinking they will make you appear young, for you will be disappointed.

Fabric. — Select and buy good fabric that is suitable to the pattern, preferably one of those named on the pattern envelope. Read the direction chart about the amount of cloth needed carefully, so that you may have enough fabric with no extravagant waste. This saves your pennies (pages 167–169; 201)!

Color. — Nature has given each one of us a keynote of color (pages 154–156). Each should wear the shades that will enhance the beauty of her individual coloring and blend with her wardrobe. The softer the color tone of a dress, the softer the dress will appear when worn. Bright colors must be used in small quantities and shades in bulk. Too much color distracts attention from the wearer's face and personality in general. Remember that all people do not respond in the same way to color.

Trimmings. — In selecting trimmings it is best to have too little rather than too much. Designed fabrics are more effective with

self-trimming. All trimmings should combine to produce a oneness of effect (pages 157-160).

Shrinking the Fabric. — Shrink the fabric (pages 284-286) and even the ends (page 200).

In making the dress, much time can be saved by using an organized method (pages 203-205).

Study the pattern (pages 201-202). All pin fitting is done along the seam lines, and should be done with care, because then the exact amount the pattern needs to be altered in width and length can be determined. Arrange the pattern economically on the fabric and cut (pages 200-202). With each pattern is a direction sheet or guide which outlines in detail the laying out and cutting in the most economical way.

Dresses should be constructed and pressed as they are cut since this insures accuracy in fitting and finish. This is a general rule for all clothes. However, every dress is an individual problem as to seams, trimmings, etc., depending upon the pattern and fabric used. Pressing should be done at every stage in the constructing of a dress, in order to blend the seams and parts together and produce a finished effect.

2. HOW TO MAKE A COAT, AND THE BEST TAILORING PROCESSES IN USE

He made him a coat of many colors. — GENESIS 37:3

The finished smartness of a coat depends upon suitability to type, occasion, climate, and age. The really tailored coat must denote careful workmanship, and taste in selection of color and suitable fabric. There are certain processes used in the construction of tailored garments, whether they be suits, coats, or dresses. The tailored coat with the notched collar is one of the best examples of the many processes of tailoring and will be used to illustrate the making of a coat.

The tailored coat is suitable only to certain types, but features of it may be adapted to almost every type. Your wardrobe, which is most versed upon such matters, will tell you your need as to color and style. Your budget will tell you the amount to be spent on the coat (pages 216–218). The fabric chosen will depend largely upon the occasion for which it is to be used, the climate in which you live, and your age (pages 168–169). Wool fabric is more adapted to tailored finishes than other materials, and the greatest demand for tailored garments comes from the business and sports world.

In the construction of the tailored garment the pressing equipment is as essential as the sewing machine. Never use one without the other in making coats. It cannot be repeated too often that one half the secret in good sewing is pressing as you go; because pressing blends the seams together and gives the coat a trim, tailored finish.

The following steps will give a satisfactory order to follow in making a coat:

Pattern (pages 219–254). — The style of pattern should be dictated by one's type (pages 265–266), and by the use for which the coat is intended.

Measurements. — Follow "How to Take Accurate Measurements" (pages 195–198).

Fabric. — Purchase the yardage of fabric designated on the back of the pattern envelope (material that is in keeping with the design of the pattern), lining, and trimming. Cheap fabrics do not have the body and lasting qualities that are required of a smartly tailored coat. Therefore, it is advisable to purchase a good quality of worsted or woolen, as it takes the tailored finishes best and always appears well.

Muslin. — Purchase as many yards of a medium grade of Indian-head unbleached muslin as the yards of fabric called for by the pattern.

Shrinking. — Shrink the muslin and fabric for the coat (pages 284–286).

Study Pattern. — Identify all pieces of the pattern and pattern markings (pages 200–202). Return the unnecessary pieces to the envelope.

Pin Paper Pattern. — Carefully pin the paper pattern together to get an idea of the necessary alterations.

Cut Muslin Pattern. — Cut the muslin pattern, following directions for cutting garments (pages 203–205). The muslin coat is cut as though it were the coat material, allowing for all alterations indicated by the paper fitting. Mark with a straight line the way

the muslin pattern should be placed on the material so that the line of marking will be parallel with the warp thread.

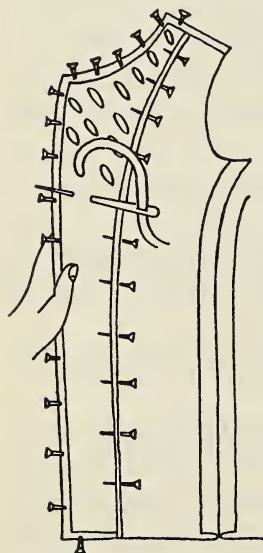


FIGURE 293

Assembling the Muslin Coat (Figure 293).

— Make darts or tucks (pages 46–47; 50–51). Establish shoulder or underarm seams (pages 219–222), and make seams. Establish neck line (page 223). Make facing. Cut the facing by the adjusted facing pattern. Place the right side of the facing to the right side of the coat and pin them together. Baste from the neck line down; then, from the neck line, stitch one quarter inch from the edge, beginning at the notch at the top of the lap and down the facing. Clip the corner of the facing and turn in the facing to the right side of the coat to the depth of the notches. Beginning at

the notch on the right side of the coat, baste the facing from the neck line to the waist, or the end of the lapel; the right side of the facing must be turned under toward the coat far enough so that the plain seam does not show. From the bottom of the

lapel turn under the coat toward the facing, so that the plain seam does not show.

Make Single Collar. — Pin the paper pattern to the neck line, beginning at the two notches, to see if the paper collar pattern fits the neck line of the coat pattern before cutting. If the pattern is too small, allow extra room on the center fold, and if it is too large, lap on the center fold. Fold the fabric crosswise and place the pattern on the fold. Turn the right side of the single collar to the right side of the coat, and pin it to the neck line, beginning at the notches. Baste to the coat, taking care not to include the facing. Press the plain seam open and baste the facing in place, to the front of the collar.

Establish the armseye (pages 223–224). Make the sleeve (pages 89–98). Set in the sleeve (pages 94–96). Establish sleeve length (page 89) and coat length (pages 64–65). Cut sleeve and coat on line established. Press all seams open and cut on creased line.

Cutting the Coat. — The fitted muslin pattern is used instead of a paper pattern to cut the coat. There are no seam, sleeve, or hem length allowances. Allow one inch on straight seams and one-half inch on curves.

Place the muslin pattern on the material and cut the coat as for the muslin pattern, taking care to start at the top of the fabric (pages 200–201). Be sure the material is pre-shrunk, for the material will need to be dampened often for pressing. Pressing is a most important feature in making a coat.

Assembling the Coat (Figure 294). — Make the dart (pages 46–47). Baste and stitch plain seams (page 40), dampen and press, always following the warp thread (pages 282–284). Make the facing. The top of the facing serves as the right side of the lapel of the coat, and should match the back of the facing, which is part of the coat, if there is a design in the fabric. It is necessary to use an interfacing in the collar, cuffs, and facings of the coat so that

they will hold their shape. Smoothly rolled lapels and collar and good firm edge lines are more than half the battle in making a tailored garment. Cut the facings by the muslin pattern and use the muslin facings for the interfacings. The interfacings are placed

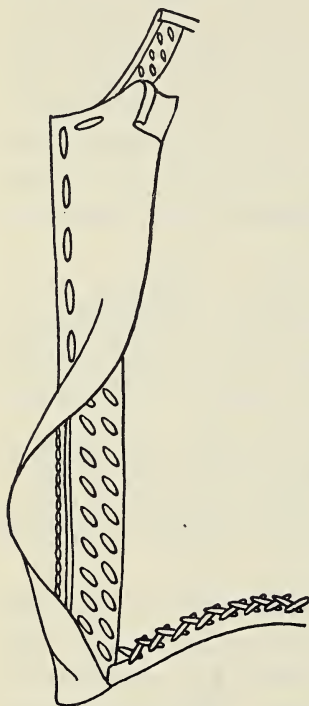


FIGURE 294

on the wrong side of the front of the coat, pinned and basted, and held in place by diagonal basting stitches which are invisible from the right side of the coat as in Figure 293. Hold the lapel facing firmly over the hand with the interlining on top, and in stitching roll and shape the lapel the direction in which it is to be when finished. Trim the edges of the interfacing one-quarter inch from the edge. Place the right side of the coat facing to the right side of the coat and pin together.

Baste from the neck line down, and from the neck line in, to the depth of the notches, and stitch; following the interfacing, one-quarter inch from the edge, beginning at the notch, stitch down the facing. Clip the corner, dampen, and press the plain seam open. Turn the facing to the right

side. Beginning at the notch, hold the plain seam under, so that the seam cannot be seen from the neck line to the waist or the length of the lapel as in Figure 294. From the bottom of the lapel turn the plain seam in the opposite direction so that the seam line does not show on the right side of the coat. Dampen the facing and press, using a pressing cloth (page 282). Baste the raw edges of the facing to the coat.

Make tailored collar (pages 84–85). Make the sleeves (pages 92–94). Set in the sleeves (pages 94–96). Make the cuffs (pages 101–102). Establish the hem line (pages 64–65). Make the coat hem. Mark the hem two inches in depth from the established line and cut off any excess fabric. Baste the hem in place, taking care to match the seams. The bottom of the facing is cut

one-quarter inch below the creased hem line, and the inner-lining at the bottom of the facing is cut exactly at the creased line (I). With small bastings turn the creased fold back of the facing, and baste just above the creased line. Turn in a small hem along the side of the facing, the distance that

overlaps the hem. Cut out the hem of the coat that comes under the facing one-quarter inch from the finished edge of the facing (II). Baste the facing to the bottom of the coat, so that the folded edge of the facing and the coat just meet. Dampen and press with a pressing cloth. Sew the fac-

ing, that has been basted to the coat, securely in place with small diagonal basting stitches (page 5). Sew the raw edge of the facing and hem in place with the catch stitch (page 11).

Make the pockets that are in keeping with the type of coat desired (pages 104–114). Make buttonholes (pages 128–136) and sew on buttons (pages 137–139) that are suitable to the fabric and type of coat. Make and sew in lining (pages 119–123).

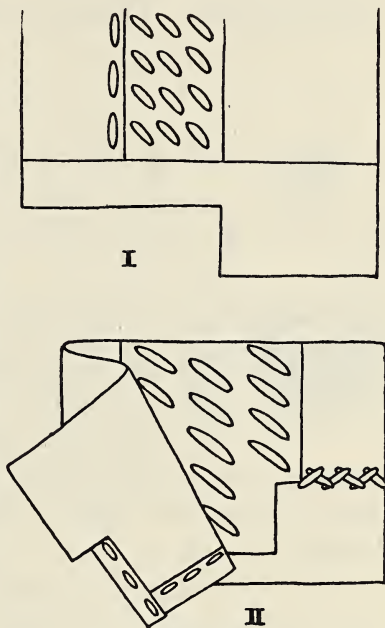


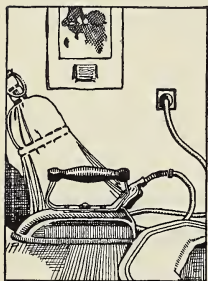
FIGURE 295

CHAPTER XII

CLEANING, PRESSING, AND SHRINKING

Cleanliness is next to godliness.

— JOHN WESLEY



CLEAN garments are economical. Clean fabrics wear longer than soiled ones. Clean garments give a personal satisfaction and have a psychological reaction on the senses.

There are two general methods of cleaning : dry cleaning and washing. Silks and wools are usually dry cleaned, while cottons, linens, and rayons are most often washed. Experiment first with a small piece of the material to ascertain which method to use, and shake or brush the garment well before cleaning.

1. THE CLEANING OF GARMENTS

69. Dry Cleaning. — Dry cleaning was developed in France. It differs from laundering in that the solvents used are readily volatile and contain no moisture. Gasoline, naphtha, carbon tetrachloride, trichloride, thylene, ethylene, and the new "Stoddard Solvent" are used in dry cleaning. All agents except carbon tetrachloride are explosive, and the vapors are heavier than air and settle to the floor instead of rising. They should, therefore, be used out of doors, and never used near a fire. The safest and most satisfactory liquid for home cleaning is carbon tetrachloride.

There is no danger from ignition, or explosion by flame, or static electricity. The fumes caused by the rapid evaporation are its only danger, and the smaller the quantity used, the less is the danger. It is an effective stain remover and dry cleaner.

In dry cleaning, the garments should be dipped and squeezed, but never rubbed, as this creates a friction between the fiber which may cause enough static electricity to make the garment burst into flame. Static electricity is present after the first thirty seconds of the cleaning process, and the touch of finger nail to the metal edge of the cleaning container may cause an explosion. Garments should be thoroughly aired after cleaning, so that the cleaning agent will evaporate. The odor may then be removed by pressing, except in velvet, which should be steamed and brushed. Cleaning in this way does not affect the dye, cause shrinkage, or remove plaits.

70. General Directions for Washing. — Soap and soft water, plus air and sunshine, are the only indispensable cleaning agents. Soap is inexpensive and the other agents are free, so that no one has an excuse for not having clean, white clothes. Before washing, sort the clothes, mend, and remove spots and stains.

Water. — Soft water should always be used in washing. If the water is hard, there are many ways of softening it. This should be done before the soap is added, so that the properties of the soap will not be destroyed by uniting with the lime and magnesium of the hard water. The best way to soften water is by adding sal soda, one pint of borax soda ash or caustic soda to one gallon of water. Use two tablespoons of sal soda to soften one gallon of water. Sal soda is the foundation of all washing powder softeners, plus various fillers.

Soaps. — The five forms of soap are bars, flakes, chips, semi-solids, and powders. The mechanical action and suds used in washing loosens and carries away the dirt. The soap coats it with a soap film, which prevents the dirt from clinging to the fabrics.

Soap has a stronger tendency to absorb dirt than have fabrics. Bar soap is the oldest form made and is used when it is necessary to apply soap directly to a part of the garment. Flake soaps are thin to transparency, and are made especially for delicate fabrics and colors. Such soaps are a time saver and are usually pure and economical. Chipped soaps are the most satisfactory to use in washing machines. They dissolve readily in hot water and are convenient and economical to use. Those that feel velvety are the best to use. Powdered soap is a soap reduced to powder, but soap powder is a mixture of soap and washing powder. The latter is usually used for soaking and washing badly soiled clothes.

Soap and mechanical action are equally necessary for best results in washing. Soaps that are strong enough to cleanse by soaking alone are destructive to the fibers. Soaps containing a high chemical bleach, for the purpose of removing stains, are also injurious to the fibers.

Soaking. — Soak garments one-half hour in warm water, or overnight in cold water, to loosen the dirt and to save time. Clothes should never be soaked in hot water as it sets the dirt. The wash water should be softened and mild soap should be used. Use just enough soap to make a lasting suds.

Boiling. — White clothes should be boiled fifteen minutes, and should be kept under the surface of the water. Add one tablespoon of turpentine and two of borax to the water in which the clothes are to be boiled. This will greatly aid in the whitening process.

Rinsing. — Clothes should be rinsed twice in hot water, and once in cold to prepare for the bluing water. Bluings are used to whiten yellowish clothes, since blue and orange are complementary colors, and when mixed in proportion give the effect of whiteness. Properly washed clothes, well rinsed and bleached in sunshine, require no bluing. Starch may be used to give stiffness to clothes.

Rice and potato starches give finish and body, but not stiffness. The clothes should be dried in clear air and sunshine, for these two powers whiten and purify the clothes. Clothes should never be allowed to freeze, as frozen fibers will break with the least bending. Sprinkle the clothes evenly, and let them stand until the moisture is evenly distributed.

Ironing. — Iron directly on the fabric with strength and firmness, and follow the warp thread up and down the garment. Linen should always be ironed on the wrong side to preserve the rough finish of line. Embroideries and laces should be ironed on the wrong side over a soft pad to bring out the design. The iron should be lifted up and down, pressing a small portion at a time, so as to keep the pattern in position. Tucks are ironed lengthwise until dry. In ironing ruffles, iron the edge of the ruffle first and then turn the point of the iron toward the gathers. In ironing garments, always iron the cuffs, collars, sleeves, front, then the back.

71. Washing Special Materials. *Rayon.* — Rayon is washed like cotton but should be handled with greater care, for the fibers are weakened when wet. To remove water, it should be squeezed but never twisted. Rayon should be dried upon a flat surface when possible, or evenly hung over the line and ironed with a warm iron on the wrong side after it is entirely dry. Acetate rayon will melt under a hot iron.

Silk. — Silks are always washed in tepid water, as hot water will turn the fiber yellow. They should be dipped and squeezed but never rubbed. They should never be starched or blued. A mild flake soap is advisable to use in washing silks. After the silk has been thoroughly washed, it should be rinsed in water of the same temperature. Squeeze excess water from the silk and roll in a Turkish towel. Iron with a warm iron on the wrong side when almost dry. This method will preserve the luster and make silk look like new.

Wool. — Before washing a knit wool garment, brush it thoroughly to help remove the dirt. Then lay it out flat on a paper and make an outline of its shape. This same outline will serve for future washings also. After washing the garment, place it on the paper, shape it to fit the outline, and leave it until it is dry enough to press.

Wool should be washed in soft, tepid water with a mild flake soap or pure naphtha soap; and through the entire process of washing and rinsing, the waters should be kept at the same *even* temperature. If soft water is not attainable, add one tablespoon of borax or ammonia to each gallon of water. Borax is best for colors; dissolve it in a little hot water before adding it to the wash water.

Never put woolen fabrics into hot water or hot suds, but remember that the warmer the water, the more likely the colors are to run and the material to shrink. Always use enough mild soap to maintain rich suds, otherwise a greasy deposit of lime soap is left, giving the garment a spotty appearance and a dingy cast. When the suds are ready, put the garment in and start washing at once. Colored fabrics should not be soaked even for a short time; nor should white garments that have colored trimmings, for they are likely to become streaked as well. The garment should be washed by squeezing the suds through and through, but should never be rubbed. If there are any very soiled spots, squeeze the suds through these portions repeatedly. Do not allow the weight of the wet garment to pull it out of shape or to tear the sheer yarns in the daintier garments. Wash badly soiled pieces several times in clean suds. The fresh appearance so much desired cannot be expected if the suds are dirty. Plenty of clean suds are necessary in order to get fresh, soft woollens.

Wool should be rinsed in tepid water to which has been added enough soap to make it look milky. After rinsing, squeeze the excess water out, roll the garment in Turkish towels, and then

twist them to absorb as much water as possible. Press as soon as sufficiently dry. The whole washing and drying should be done as quickly as possible. When wet, the wool expands and the projecting edges loosen, but when drying, they interlock, drawing the fibers closer together. There are five main causes of shrinking: strong soap, hot water, alkalies, much rubbing, and a hot iron.

Flannels. — Flannels should be soaked for a few hours in cold water and then washed in a warm soapy (mild) solution. Dry in a windy, shady place, if possible. This method will not harden or shrink the flannel.

72. Method of Bleaching Linens. — The old Irish method for bleaching linens and white cotton is both simple and effective. Wet the linen in buttermilk and place in the sun until it is bleached to satisfaction. Wash and press carefully. The article will be snowy white. Old linens and cottons may also be treated in this manner, or by soaking them overnight in a solution of pine clay and warm water. Wash and boil them the next day in the usual way. Silk and wool may be kept white by using in the rinse water each time one teaspoon of hydrogen peroxide diluted in a quart of water. Almost any kind of stain on white fabric can be removed by the following method: Dissolve two pounds of sal soda in two quarts of water and boil until dissolved. Add one can chloride of lime. (This solution will keep indefinitely.) Soak the article fifteen minutes, rinse well, and boil. This solution will not hurt the fiber if it is rinsed well.

73. Setting Colors. — Will it fade? This question is difficult to answer because of the many different dyes, methods used in dyeing, and the power of the fiber to hold the dye. Fibers may be compared to tiny tubes that hold the dye within them. The tubes are seldom able to absorb all the dye in the dye bath. When high, vivid colors are desired, the excess dye forms layers around the fiber. In washing, many think the material is fading

when it is only the excess dye around the fiber that is washing off. When dye begins to color the water, do not remove the article but continue washing it in tepid soapy water, using a pure soap. Continue washing the article in soapy rinses until the water is no longer colored. Never leave the article out of the water, but change quickly from one to the other. The soapy solution prevents the dye from again being absorbed by the fiber. If the excess dye is not entirely removed, it will streak the material, and it will then be almost impossible to remove it. When the excess dye has been removed and the last soapy rinse is clear, rinse the article in clear tepid water. Squeeze as much water from the article as possible and wrap the garment in a Turkish towel and twist to remove as much of the remaining water as possible. This prevents excess water in the garment from running and streaking. If the methods for setting color are to be used, the above directions should be followed after the color is set.

Fast colors and faded colors on white material may be removed by dampening the material and then applying one of the reliable bleaches sold in the stores. Rinse the material well.

74. Methods of Setting Colors. *For blue, red, and black shades.* — Dissolve one cup of salt in one gallon of water, and rinse the material well in the solution.

For brown shades. — Use one-half cup of vinegar dissolved in one gallon of water, and rinse.

For bluish lavender and green shades. — Use one ounce of alum dissolved in one gallon of water.

For purple and black. — When these shades have lost their color, use four tablespoons of vinegar dissolved in one gallon of water, and rinse well after applying.

75. Tinting. — Light garments may be tinted by taking crêpe paper of a darker shade, wetting it, and then squeezing some of it into the final rinse water until the desired shade is obtained. Dry

the garment out of the sunlight. The garment must be wet before dipping it into the coloring solution.

2. PRESSING

As neat as a bandbox.

76. Tools. — Pressing removes wrinkles, crinkles, and creases ; and nothing gives more life to a garment than pressing. Pressing should begin with the construction of the first seam, as it blends the garment together and gives a finished appearance.

Ironing Board — The ironing board should have a smooth, firm, and well-padded surface. This padding should be made by layers of felt, flannel, or table wadding and be large enough to cover the entire board. A fine grade of canvas is splendid for ironing-board covers, or a heavy grade of unbleached muslin may be used. Several strips of straight tape are sewed at even distances along the sides of the padding and muslin covers to hold them in place. The removable covers may be conveniently laundered.

Sleeve Board. — The sleeve board is necessary for correct pressing of sleeves and armholes. It is about two feet in length and tapers in width from five inches at the upper end to three inches at the lower end. The sleeve board is padded and covered in the same manner as the ironing board. If a sleeve board is not available, a Turkish towel, folded to about three inches in width and placed inside the sleeve, proves very satisfactory.

Tailor's Cushion. — A tailor's cushion is used in pressing and shrinking the excess fullness from the darts, the top of the sleeves, and curved seams. The cushion is made from two pieces of heavy, firm material, eighteen inches by fourteen inches in size and is egg-like in shape. It may be stuffed firmly but not solidly with wadding. Sawdust and sand may be used but are not so satisfactory.

Pressing Cloth. — The pressing cloth should be of some heavy firm material, preferably a medium grade of unbleached muslin. The cloth should be dipped in hot water before using, to remove sizing. The pressing cloth may be used in either of three ways, depending upon the fabric. A dampened sponge is used in pressing silks. A damp cloth is used in pressing heavy fabrics, mainly wool. The cloth is dampened by placing one half of it in warm water. The excess water is squeezed out and the dampened side is folded over and wrung together with the dry side to distribute the dampness evenly. To press seams the dry cloth is placed over the seam and the cloth is slightly moistened with a sponge, brush, or the finger tips. This method does not cause spotting.

Iron. — The six-pound iron is most commonly used. Only a moderately hot iron should be used in pressing, which is the process of lifting the iron gently over the fabric. *Press*, do not iron. Work slowly, pressing always with the warp thread. Press lightly at first until the moisture changes to steam, and then increase the pressure. Press until the fabric is dry. Keep the iron moving over the fabric to avoid the imprint of the iron or scorching. Good pressing removes the “home-made” look of a garment and will do much to prolong the life of the fiber. The secret of a well-pressed garment is to press as you sew, and not after the garment is finished.

77. Method of Pressing. — Fabrics not made up are pressed on the wrong side, while finished garments should always be pressed on the right side so as to conceal folds and ridges. Most materials are affected by heat and moisture. A piece of the material should always be tested to determine the effect of heat and moisture on the fiber.

Long seams are always pressed on the ironing board. The short seams are pressed on the sleeve board, while the top of sleeves, darts, and curves are pressed on the tailor's cushion. The

seam around the armseye is always pressed toward the sleeve, using the point of the iron. Shoulder and underarm seams are pressed toward the back of the dress, except when plain seams are desired. Bias seams are pressed from the wide to the narrow part.

78. How to Press Various Fabrics. *Cotton.* — Cotton may be pressed on the right or wrong side.

Linen. — Linen should always be pressed on the wrong side to preserve the rough appearance on the right side, except on table linen where a gloss is desired. In this case iron half dry on the wrong side and finish ironing dry on the right side with a very hot iron. If a high gloss is desired, dip the linen in very hot water and run through the wringer. Fold smoothly and roll in a Turkish towel for a few hours and then iron.

Pile Fabrics. — Pile fabrics may be pressed on a wire board made for this purpose. The board is made with a heavy canvas back and fine wires set close together in a slanting position. Then canvas is tacked over the wire board. The pile is not injured when pressed over the wire board as it sinks between the wires. To remove deep creases, a slightly damp cloth may be placed on the wrong side of the fabric that has been put on the wire board. Always press nap fabrics, as broadcloth and panne velvet, with the nap. Nap fabrics should be steamed, and this may be done successfully at home. Use a one-gallon can having a spout. Fill the can half full of water and screw the cap on tight. Place a five-foot rubber tube over the end of the spout. A strong steam will come from the end of the rubber tube when the water boils. Place the garment on a hanger and hold the end of the rubber tube to the garment, moving it lightly back and forth until the wrinkles are steamed out. Then brush the pile lightly with a whisk broom. Seams may be pressed by placing a wet cloth over a hot iron turned upside down. Hold wrong side of the seam over the steaming cloth. This method may also be used to raise the nap in velvet.

Silk and Rayon. — A warm iron should be used on silk because a hot iron weakens the fiber, therefore taking the life from the silk. Always use a dampened sponge in pressing, and press on the wrong side. Tissue paper may be used over the silk.

Wool. — Wool should be pressed with a damp cloth and requires more pressing than any other fabric. A cloth of new cambric muslin gives a degree of stiffness that lends a newness to the fabric. The same cloth may be used several times for this purpose. A colored pressing cloth should be used on dark fabric to prevent lint from showing. Wool may be satisfactorily pressed by dampening with a damp sponge and placing a piece of cheese-cloth or wrapping paper on the fabric before pressing. In shrinking, press the fabric lightly so that the steam will circulate under it. The shine may be removed from woolen fabrics by rubbing with a fine emery paper, teazel, or by using a pressing cloth which has been dipped in water containing a little witch hazel or vinegar (two tablespoons to one pint of water) or a teaspoon of ammonia. Stop pressing before the fabric is dry and brush with a bristled brush.

3. SHRINKING

The long and short of it.

Will it shrink? All fabrics shrink some, whether it is noticeable or not. The amount of shrinkage will depend upon the treatment that the fiber has received. The fibers may have been stretched before and after weaving and, since fibers are affected by hot and cold solutions, the fiber will regain its original size or shrink noticeably. For this reason all fabrics should be shrunk carefully before being made up. Garments that have not been shrunk, or are not large enough to allow for shrinkage, cannot be re-dyed because the hot and cold dye baths in the process of dyeing affect the fiber, causing it to shrink.

Fabric shrinks on the average of one inch to a yard. For this reason it is an advantage to shrink fabric before it is made up. The disadvantage of shrinking fabrics is that it destroys the newness and hence soils more easily, but shrunk fabrics will not water spot. It is usually advisable to press shrunk fabrics on the wrong side, and the right or wrong side may be determined by the weave and the way it is rolled on the bolt.

Cotton and Linen. — Before shrinking these fabrics they should be carefully folded, keeping the selvages together. Place white fabrics in a container of very hot water and let them remain until the water is cold. Colored fabrics should be soaked for several hours in cold water. Remove the fabric from the water and, without unfolding, shake as much water from it as possible. Hang the fabric up straight from the selvedge edge until it is nearly dry. Linen and cotton are generally folded on the bolt with the right sides out.

Silk. — Silk may be folded on the bolt with either the right or the wrong side in. Silk, except crêpes, does not require shrinking, but may be treated for spotting. Dip in tepid water and remove. Do not wring. Hang the fabric up straight from the selvedge to dry. Remove the fabric before entirely dry and press on the wrong side with a warm iron until thoroughly dry.

Pile Fabrics. — Pile fabrics should never be shrunk but should be steamed.

Wool. — Many wool fabrics are shrunk before sold, but they should always be tested to be sure that the shrinking has been done. If the tested sample changes in color or appearance, the fabric should not be shrunk. If the fabric is to be shrunk, a large sheet should be wet evenly and folded lengthwise through the center. The wool fabric should be placed smoothly upon it, with the right side in, but the folding of the narrower widths may be either on the right or wrong side. Roll the sheet and the fabric evenly together. Let them remain rolled until the fabric

is thoroughly dampened. Then press carefully, first on one side and then on the other, still keeping the fabric folded. Press with the warp thread until thoroughly dry.

4. THE REMOVAL OF STAINS

Out, out, I say! — SHAKESPEARE

Stains are unlike dirt marks in that they have penetrated the fibers instead of being held on or between them. The five different kinds of fibers composing fabrics cannot be treated the same because, generally speaking, the vegetable fibers — cotton, linen, and rayon — are not injured by alkalies but are by acids. When acids are used, therefore, they should be neutralized by weak ammonia. Wool and silk are injured by alkalies, and even washing sodas or strong alkaline soap often seriously injure these fibers. A mild washing soda, therefore, such as borax or diluted solutions of ammonia, should be used. Acetic acid will often restore a color that has been changed by alkalies. Wool and silk are *not* injured by acids. Each “spot” is a different problem and requires special consideration because of the different fibers and the 1500 varieties of dyestuffs. The nature of the stain and fiber should be known, if possible, before its removal is attempted, because this determines the treatment. The stain remover and the method used should be as mild as possible and should be repeated until the stain has entirely disappeared. When acids are used on vegetable fibers, they should be neutralized by weak ammonia.

The chief difficulty encountered by the inexperienced are the ring formation and the roughening of the fabric. Rings are caused by the excess dressing of the fabric which runs back into the edge of the damp portion and is deposited there as the fabric dries. Or the fabric may be soiled, in which case the cleaning agent removes any foreign matter as well as the stain. Care

should be taken to sponge the soiled spot with the least possible amount of cleaning agent. If a small quantity of salt is added to the cleaning agent, it will also help to prevent the customary ring, through absorption. After the spot is removed it is well to go over it lightly with a moist sponge or cheesecloth, absorbing the surplus liquid and barely dampening the surrounding fabric enough to spread the dressing out in an irregular indistinct line. It is sometimes helpful to go over the spot with a tintless sponging cloth barely moistened in denatured or wood alcohol. Alcohol affects some colors, so one must be careful to have the cloth just damp. When it is impossible to prevent rings, the entire garment will have to be cleaned.

Rapid drying should always be practiced in drying stain removals, especially when there is danger of ring formations. When the fabric becomes rough after the removal of stains, it is due to too harsh treatment when being sponged.

79. Removing Agents. — There are four agents used in stain removing, and they should be used as quickly as possible so that the chemical is not left on the textile fibers any longer than necessary.

Washing. — Water is used with soap, soapbark, ammonia, borax, or washing soda. Water should be used first on all materials that do not spot or fade. To remove stains, never use hot water on wool and silk as it turns it yellow, shrinks the wool, and injures the finish of the silk. Most rayon is weaker when wet than when dry, and boiling is likely to decrease its luster. Precaution must be used, as water may spot the fabric or cause the color to run. Yellow naphtha soap may be used in the wash water for all washable and colored fabrics and will remove the majority of stains.

Solvents. — The solvents are water and such liquids as chloroform, ether, carbon tetrachloride, gasoline, naphtha, benzine, kerosene, turpentine, and wood or denatured alcohol. Most

stains are removed by solvents. As the vapors from the organic solvents are injurious when inhaled in large quantities, they should be used out of doors or in a very well-ventilated room. Gasoline, naphtha, and ether are very inflammable and may be the cause of serious fires. Benzine and acetone are also dangerous to use.

Bleaches. — All bleaching agents are somewhat harmful to fibers and should be used with care, and never in concentrated forms or for extended periods of time. The bleaches are hydrogen peroxide, javelle water, salt, lemon juice, "salts of lemon," oxalic acid, hydrochloric acid, potassium permanganate, sodium hydrosulphite, and sulphur candle for sulphur fumes. Bleaches remove stains by bleaching out the stain and should be used only on fast colors or white because almost all of the bleaches will remove the color of the fabric as well as the stain. They should be applied a drop at a time until the stain is removed. When the stain is removed, dip the fabric in water, rinse in ammonia, and then again in water.

Absorbents. — The absorbents are talc, starch, French chalk, fuller's earth, magnesia carbonate, and cornmeal. They are harmless to all fabrics. When spread on stained fabrics, they often absorb the staining matter. They can then be brushed off readily. They cannot be relied upon when the stain is set very deeply.

In removing all stains with solvents, it is advisable to place a fold of clean cloth or blotting paper under the spot so that the solvent will be absorbed and not leave a ring when it has evaporated.

When applying remover directly on a stain, use a medicine dropper, a glass rod, or a clean cork, or sponge the stains with a cloth. A lintless sponging cloth may be made from a soft piece of material one inch wide and nine inches long. Fold the strip three times and fold the ends together. Use very little

solvent at a time, as the sponging cloth should only be damp. Always stroke lightly over the spot and around it, stroking with the warp thread.

80. Common Stains. — The following gives reliable methods for removing twenty-two common stains affecting materials:

Blood. — Wash all washable fabrics in tepid soapy water. On unwashable fabrics cover the spot with a thick paste of raw starch and repeat until the stain disappears. Hot water will set protein and should not be used in such stains. Naphtha soap, javelle water, or ammonia added to warm water may be used for cotton, linen, and rayon; chloroform, for all fabrics. If the spot is yellow, boil cotton, linen, and rayon in a soapy, borax solution. Use hydrogen peroxide on fast colors. For old stains, use a solution of two tablespoons of ammonia to one gallon of water for all washable fabrics, silk, and wool.

Bluing. — There are three types of laundry bluing, and since they differ chemically, spots due to them require different treatment.

1. Ultramarine blue (balls or blocks of). — Rinse in an abundance of cold water. Launder in a large quantity of soap, or apply hydrochloric acid diluted in one to four times its volume of water. A 10 per cent solution of acetic acid will dissolve heavy stains of this kind. Rinse fabric thoroughly.

2. Prussian blue (bluish green in color and a liquid bluing commonly known as Chinese or soluble bluing). — This causes yellow discoloration or spots upon white clothes. If the clothes are not rinsed to free them of alkalies, they react and form ferric hydroxide which is deposited upon the clothes. This is set in the fiber by heat and is identical to that of iron rust. For methods of removing iron rust see page 294.

3. Analine blue, or coal tar blue (crystal or powder form, with a dark blue or an iridescent color). — Stains from this bluing are removed by the same method as for the Prussian blue.

Cocoa and Chocolate. — Soak all fabrics in cold water. Soak linen, cotton, and rayon in cold water and borax. Soak all washable fabrics in glycerine. Javelle water may be used on cotton, linen, and rayon; or the stain may be soaked in wood alcohol made alkaline with an ammonia solution. This is a particularly effective method.

Coffee and Tea. — Place the stain in one quart of buttermilk to which one tablespoon of cream of tartar has been added. Let stand until stain is removed. (This old Irish method has never been known to fail.) Use plain cold water for all fabrics. Soak cotton, linen, or rayon materials in borax or ammonia, and pour boiling water on the spot. Soak linen, cotton, and rayon in glycerine and ammonia, or hydrogen peroxide and diluted ammonia, and then apply diluted acetic acid in water. Stains that have been set by heat (electric iron) or alkali can never be satisfactorily removed.

Chewing Gum. — Rub hard with carbon, or use gasoline for all fabrics. Kerosene or turpentine can be used for cotton, linen, and rayon; or the stain may be softened with egg white and then washed. Chloroform or gasoline or carbon tetrachloride can be used for all unwashable fabrics.

Egg. — Wash all fabrics in tepid soapy water. Soak cotton, linen, and rayon fifteen minutes in cold water, boil, and wash. Wash fast colors of cotton, linen, and rayon in hydrogen peroxide.

Fruit. — For linen, cotton, and rayon, pour boiling water on the stain, from a height. For a peach stain, soak in cold water, rub on soap, and lay fabric in the hot sun. Repeat the process until the stains vanish. Warm alcohol can be used on all materials. Use hydrogen peroxide mixed with ammonia on cotton, linen, and rayon. For fast colors of cotton, linen, and rayon, there are two methods to use: either boil equal proportions of water and javelle water, and apply, rinsing in warm water; or, wet the

article with hot water, apply a solution of ten grains of oxalic acid and one pint of water, and *rinse well*. Diluted ammonia can also be used on cotton, linen, and rayon. Fruits are acid and the stains must be counteracted with an alkali. Acetic or oxalic acid may be applied to blue or gray stains after boiling water has been added. This restores the original color and renders the stain more easily soluble in boiling water. Stable hydrosulphites or potassium acid oxalate, commonly known as "salts of lemon" or "salts of sorrel," are very satisfactory for removing stains in white fabrics. Treat stains with boiling water and then boil them in a solution of oxalate acid.

Grass. — Use ether, wood or denatured alcohol, or milk on all fabrics. For cotton, linen, and rayon, use ammonia and wash in a soda solution, or molasses, or equal parts of hydrogen peroxide and ammonia. For all washable fabrics use kerosene, or naphtha soap. Traces of stain may be bleached out with javelle water or potassium permanganate. A dry paste of soap and baking soda may be made and allowed to dry on the fabric, repeating the applications until the stain has disappeared.

Grease. — Use any spirit, gas, carbon tetrachloride acetone, or benzol for all fabrics. Use alcohol on all unwashable fabrics. For cotton, linen, and rayon, apply lard and wash first in cold and then in hot, soapy water; or cover the spot with fuller's earth, magnesium carbonate, starch, or French chalk; then place the spot between blotting paper and apply a hot iron.

Ink. — The compositions of ink are so varied that one method will not remove all spots.

1. India ink. — Apply wood or denatured alcohol, glacial acetic acid, chloroform, or gasoline.

2. Marking ink. — Moisten with a few drops of tincture of iodine, sponge out, and then remove with a solution of sodium thiosulphate made by dissolving several crystals in half a cup of

water. Corrosive sublimate (poison) in dilution is very effective, but because of its poisonous nature, care must be taken to keep it from the fingers and to remove all traces of it from the vessel used. Javelle water may be applied for white cotton or linens. Soak the stain in ammonia solution and launder well.

3. Printing ink. — Rub the stained place with lard, working it well into the fibers, then launder with a strong soapy solution, or soak a few minutes in turpentine, then sponge out with chloroform, ether, or wood alcohol.

4. Writing ink. — Sour milk can be used on all fabrics. For all fast-color fabrics, alternate oxalic acid and javelle water, a few drops at a time. For all washable fabrics, either soak in a strong salt-water solution and rinse in a strong solution of ammonia, or moisten the ink spot and rub with salt, cornmeal, or sugar, then wash in cold water. For cotton, linen, and rayon either use salt and lemon, or rub ordinary laundry soap on the spot, wet with kerosene and then peroxide, roll the article, and let stand one hour. White cotton, linen, and rayon can be treated with ordinary laundry soap rubbed on the spot, then wet with peroxide, and the spot held over steam from the iron or tea kettle. For cotton, linen, and rayon of fast colors, use lemon juice and sunshine. For red ink use cold water followed with ammonia, or javelle water, or hot ammonia and alcohol.

Iodine. — Wash all washable fabrics immediately with cold water and sponge with chloroform, denatured or wood alcohol, or an ammonia solution. Sponge in sodium if desired. This sulphate consists of one tablespoon of sodium to one pint of water, or sodium sulphate. Wash cotton, linen, and rayon in hot, soapy water. On unwashable fabrics, steam the iodine spot until the stain has disappeared, or apply hot ammonia and hyposulphite of soda.

Mildew. — Use alcohol on all fabrics, or ammonia followed by vinegar, or powdered chalk and sunshine. White rit can be

used on white fabrics. For fast colors of cotton, linen, and rayon, use either lemon juice, salt, and sunshine, or a solution of one pint of javelle water to one gallon of soapy water and soak the mildewed fabric in it, or rub soap on the spots, then a little chalk and dampen with lemon juice. Mildew is the hardest of all stains to remove, and a most satisfactory way to remove it is to use two tablespoons of chlorox in one quart of cold water, rinsing thoroughly. Old and persistent stains may also be removed with potassium permanganate. A 10 per cent solution of oxalic acid will remove some forms of mildew.

Oils. — There are three methods for cleansing all fabrics of oils: gasoline, alcohol, ether, chloroform, or naphtha; carbon tetrachloride; or place the spot between blotting paper and apply a hot iron. Turpentine can be used on all washable fabrics, and soap and water on cotton, linen, and rayon.

Paint and Varnish. — All fabrics can be treated in a variety of ways: Rub with oil, lard, or butter and wash in a strong soapy solution; use benzine, carbon tetrachloride, chloroform and alcohol, or gasoline (for delicate colors use chloroform); or apply equal proportions of turpentine and ammonia to the spot, scrape the loosened paint, and apply benzine; or wash out in soapsuds. For all fabrics except rayon, soften with amyl acetate and remove with gasoline. Turpentine can be used on all washable fabrics. Equal parts of benzine and acetone and alcohol are also very good removers.

Perfumes and Perspiration. — Perspiration, if not immediately removed with plain water, will weaken the fibers, and the acid in it may form a permanent stain and remove the color of the fabric. Wash cotton, linen, and rayon in tepid, soapy water. Use denatured alcohol on all other fabrics. Hydrogen peroxide, javelle water, or potassium permanganate can be used for cotton and linen.

Rust. — Iron rust is soluble only in acids, and it is therefore difficult to remove iron rust from colored fabrics, as the acid used removes the color. A solution of cream of tartar and boiling water is good for cotton, linen, and rayon. Lemon juice, salt, and sunshine can be used on all fabrics. Boil four tablespoons of cream of tartar and one pint of water, and pour over the stain on all washable fabrics. For cotton, linen, and rayon fabrics of delicate colors, use javelle water. For silk and wool, use diluted hydrochloric acid, and for cotton and linen, use oxalic acid. Hydrochloric acid is an excellent agent but is very corrosive and should be handled with a great deal of care.

Scorch. — There are several ways to treat all fabrics: dampen the spot and place material in hot sunshine; rub the scorched spot with soft bread crumbs; and for all washable fabrics, rinse in soapy, tepid water, apply white vaseline, and dry in the sunshine. Fast colors of cotton, linen, and rayon may be treated by moistening a cloth with hydrogen peroxide, placing it over the scorch, and, placing a dry cloth over it, pressing with a warm iron. Precaution: Do not iron directly on cloth moistened with peroxide or moist fabric after dry cloth has been removed. If this is done, the iron rust stain remains on the garment. If the body of the fabric is burned, it is impossible to remove the scorch.

Soft Drinks. — Such stains are usually classed as tannin stains, and should be washed out in plain water immediately, as the fibers in the fabric are affected by tannin. It produces a yellow or brown color when exposed to alkalies and heat, and cannot be removed without injuring the fabric. Sponge all fabrics with clear warm water or denatured alcohol. Use boiling water on dry spots in cotton, linen, and rayon. Wine spilled on any fabric may be removed by putting salt on the spot, if it is done immediately.

Stamping Marks on Embroidery. — Wash cotton, linen, and rayon in tepid, soapy water. Sponge all fabrics with denatured alcohol.

Tarnished Metallic Laces and Fabrics. — Sprinkle baking soda on the tarnished surface and rub with a woolen cloth. Brush soda from the article and sponge with alcohol. Apply diluted acetic acid, hydrochloric acid, vinegar, or lemon juice. Rinse well as soon as the stain has dissolved.

Water Spots. — Rub a nickel over the spot. Dampen article evenly and press with a warm iron. Rub the spot with the warp thread of a small piece of self-material.

Wax. — Scrape off excess wax, place the spot between blotting papers, and apply a warm iron. Use heated wood alcohol, in water, or javelle water on white cotton, linen, and rayon. All fabrics may be sponged with chloroform, carbon tetrachloride, acetone, or benzine. Cotton, linen, and rayon fabrics should have the surface wax scraped off, and then be rubbed with lard or turpentine.

5. CARE OF CLOTHES CLOSET

81. Keeping Closets Neat and Clean. — If ever the truth of the old saying, “a place for everything and everything in its place,” is to be tried out, a clothes closet is the place in which to do it. Dresses, coats, shoes, or hats will never last very long, nor look very well — even though they are pressed and cleaned when necessary — if they are thrown down anywhere, hung up anyhow, and kept in a messy closet. Never mind how small your closet may be, make it a rule to clean it out thoroughly once a week. Take out all your things until it is as bare as an empty closet in an empty house. (Not only will this give you a chance to see what needs pressing, cleaning, or mending, but often a number of things will come to light which have been mislaid.) Wipe up the floor and along the top of the baseboard with a damp cloth, especially in the corners; wipe off the shelves; and dust the walls. Then leave the door open and let the air and light into it while you are taking care of your clothes.

82. Brushing and Airing Clothes. — Before returning any garments or other wearing apparel to the closet, give everything a thorough brushing: hats, clothes, and shoes. Take all those little stitches, that, "taken in time, save nine." Get under collars and cuffs; get into the corners of plaits; turn pockets wrong-side out. And whenever the weather permits, do all this brushing out of doors, because the rays of sunlight have cleansing powers.

83. Dressing Up Closets. — A closet can be made very attractive nowadays, especially if a girl likes to sew and make things herself — cretonne- or wall-paper-covered shoe boxes for her shoes and stockings; matching covering of the hatboxes on the shelves (with fronts of the boxes cut so that they may be dropped down for convenience in reaching a hat) or covered, cone-shaped standards upon which the hats may rest; long muslin bags for the "best" dresses and little shoulder covers of cretonne for the others, so that each dress is kept separate from every other. A complete color scheme may be worked out, so that the closet will harmonize with the bedroom.

Hangers, too, may be dressed up, with sachet pads sewed on them for faintly scenting each garment. An ideal hanger is one with a covering of soft, webbed material, to keep the garments from sliding off.

Such a closet is worth striving for. For clothes, you know, take on a charm from attractive surroundings.

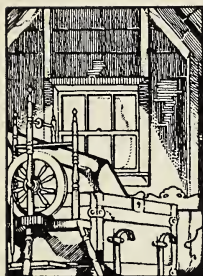
CHAPTER XIII

ORIGINS

1. ORIGIN OF TOOLS OF SEWING

*Be not the first by whom the new are tried,
Nor yet the last to lay the old aside.*

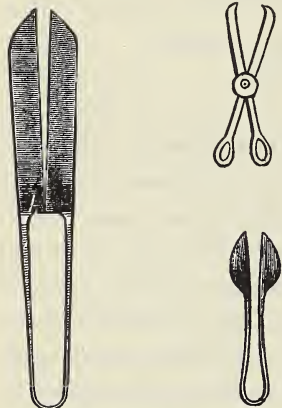
— POPE



FAR back in the dim corners of old attics, or in museums, here and there, stand the spinning wheels and the looms upon which your great-grandmothers spun the yarns and wove the coverlets that lay on the canopied beds of colonial days. It was their task to spin as well as bake, and under their agile fingers the flax or the wool became thread or yarn, which in turn was made into cloth for household linens and clothing for the family. And many an old sampler today shows the uneven stitches made by little fingers in their first lessons in the art of sewing.

But the beginning of the nineteenth century, with its machines and its fast-growing cities, brought new methods in the production of textiles and clothing. With tremendous speed machines made the cloth that used to be home-made; and girls went into the mills to work, instead of staying at home and learning to sew by hand. Before long the lovely hand-made carpets and coverlets, linens and homespuns, were put away in the attic chests, or given away, and "store" products were bought instead. For many, sewing became a lost art.

When a girl marries and has a home of her own, however, she has need of a knowledge of sewing, and it became evident that somehow and somewhere she must be taught something of the arts of this handicraft. The solution seemed to be in the school. In 1854, the women of Boston, with the financial aid of a wealthy Bostonian, succeeded in having sewing taught in the schools. From such a small beginning have grown the domestic science courses of our modern schools, up and into the doors, even, of



SCISSORS from the 10th to 14th centuries.

our colleges; so that today, no girl's education is perfectly rounded out unless she has acquired enough knowledge of homemaking to cook a little, to sew a little, to purchase articles intelligently, to know what is proper to do and to wear, and to budget her time and her money. A girl may well be proud of her ability to make her own clothes, or alter those she buys so that they may be individual and distinctive.

Scissors. — The words "shears" and "scissors," although derived from different roots, have practically the same original meaning. "Scissors" comes from the Latin "scindo," meaning "to part" or "divide," while the word "shears" is traced back through the old English "seeran," meaning "to cut" or "clip," to the old Teutonic root "skar," "to cut."

All the earlier forms of shears and scissors resembled the modern scissors. Bronze scissors were made as early as 1500 B.C. by the Chaldeans and Egyptians. Steel scissors were made by the Romans about 800 B.C.

Pins, Common. — The earliest forms of pins were thorns, fish-bones, pine needles, and the like. Later on, women changed these natural forms into more effective tools by sharpening the

points and smoothing the surfaces. Still later, metal pins were fashioned. Pins of bronze and copper have been found in ancient Egyptian tombs.

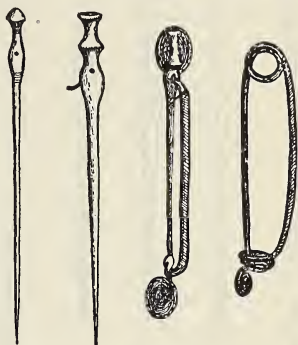
In Europe, metal pins were first made in the fifteenth century. They were very expensive, as they were fashioned out of precious metals by hand. Common pins were made in two pieces: the head, a spiral coil of wire, soldered to a metal shank. When one of the ladies at the court of Henry VIII cut herself on one of the coils, the king ordered all pins to be made of one piece.

The origin of "pin money" belongs to this period when a certain amount of money was set aside by each woman at the first of the year for her supply of pins.

Safety Pins and Fancy Pins. — The use of the safety pin dates back to the early Egyptian, Greek, and Roman days. These pins were hand-made of gold and silver, practically in the shapes of those used today. In some cases they were covered with jewels, examples of which, discovered in archeological excavations, are found in museums throughout the world.

The safety pin used today is strictly a triumph of American genius. It was made first, in 1804, with the guard on only one side of the pin, but improvements have been made at various times since.

Needles. — Needles are not a modern invention. The steps in the development of the race can be traced from primitive to modern times by the forms and materials of needles. Eyeless needles of thorns, ivory, bones, or fish-bones were used by all early people who wore skins or woven materials for clothing.



PINS, with perforated heads, from Upper Austria and Italy, and primitive fibulae derived from them, supposedly, from Sweden and Northern Italy.

With the discovery of the use of metals, bronze needles gradually replaced the more crude ones. The first metal ones were eyeless, and it is supposed that the Chinese were the inventors. Bronze needles have been found in Egyptian tombs. Some silver and

copper ones have been unearthed in ancient Peruvian graves.

Europeans learned to make needles about 100 years before the discovery of America, probably through the Moors. Steel needles were first made in Nuremburg. Later, Spain became almost as noted for her fine needles as for her steel beads. Today English steel wire is used for all high-grade steel needles.

Thimbles. — The thimble, little but mighty, is the costumer's right-hand servant. Thimbles were first used in Europe during the Middle Ages and

NEEDLES from the Bronze Age
(actual size).

were probably introduced by the Moors at the same time that metal needles were introduced. These early thimbles were made of leather and worn on the thumb. The name "thimble" or "thymelle" comes from "pinna" (a thumb), and "el" or "l" (an instrument for). In the course of time, the thimble ceased to be worn on the thumb, except the sailmaker's thimble, which is a piece of leather holding a metal form used to push heavy needles through sail-cloth.

Metal thimbles of iron and brass were first made in the seventeenth century in Holland. In 1695, John Loffington left Holland and established a factory in England. At that time all thimbles were made by hand and many were wrought out of fine metals and set with precious stones. The Chinese have beautifully carved pearl thimbles. The first thimble in Siam was a

bridal gift from the king to the queen. It was shaped like a lotus bud, made of gold and studded with diamonds arranged to spell the queen's name.

Thread. — The development and improvement of sewing cotton, as we know it today, has paralleled that of the sewing machine. The especial problem of the early thread manufacturers, in the United States, was to produce a thread that would run smoothly and not break or kink when used on a sewing machine.

At first, glacé or silk-finished thread was used on all sewing machines. Later, soft-finished thread replaced glacé on all shuttle or double-thread machines, and now soft-finished thread can be used on single-thread machines.

These changes have been due to improvements in both the thread and sewing machine. For instance, manufacturers, a few years ago, used six-cord thread exclusively, but today, when the wear and tear on the thread is far less, four- and three-cord thread is used.

Emeries. — The "emery" is a little bag, usually in the form of a strawberry, filled with emery dust, used to keep pins and needle points sharpened.

Emery derives its name from Cape Emeri on the island of Naxos in the Aegean Sea, where the best emery in the world is mined.

Sewing Machines. — Although one usually thinks of Elias Howe at the mention of the words "sewing machine," two men before him had worked out a device to take the place of hand sewing.

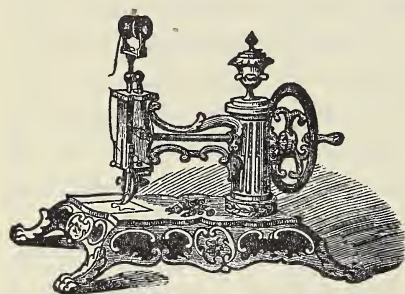
The first machine produced was by Thomas Saint who patented a wooden machine in 1790 which made a single-thread chain stitch for stitching, quilting, or sewing.

The inventor who first devised a really working machine was a poor tailor, Barthelemy Thimmonier, of St. Etienne, who obtained patents in 1830. Though the machine was clumsy and

made chiefly of wood, about eighty were being used in Paris in 1846, making army clothing, when an infuriated crowd wrecked the establishment. Thimmonier was not discouraged and in 1845 he patented a machine made entirely of metal, a great improvement over the first model. But the troubles of 1848 blasted

the hopes of this inventor. He sold the patent and died in 1887, unfriended and unrewarded.

Elias Howe, a native of Spencer, Massachusetts, directed his attention to machine-sewing about 1843. In 1844, he completed a rough model, and in 1846 patented his sewing machine. Howe was the first to patent a lockstitch machine, but his



THIS SEWING MACHINE, "embellished with landscapes, flowers, and gold," won the first premium and medal at the New York State Fair in 1857. Its price was \$15.00.

invention had two other essential features: the curved eye-pointed needle and the under-thread shuttle, invented by Walter Hunt, twelve years previously. Howe's invention was sold in England to William F. Thomas of Cheapside, London, a corset manufacturer, for 250 pounds. Thomas secured the English patent in his own name in December, 1846, and engaged Howe on the basis of weekly wages, to adapt the machine for his manufacturing purposes. The career of the inventor in London proved unsuccessful, and, having pawned his American patent rights in England, he returned in poverty to America in 1849.

The most prominent of the manufacturers, and inventors, ultimately appeared in Isaac Merritt Singer (1811-75) who in 1851 secured a patent for his machine. Elias Howe, hoping to establish his rights, regained possession of his pawned patent and

instituted six suits against the infringers. An enormous amount of litigation ensued, but ultimately Elias Howe won and became wealthy through royalties paid to him.

Thousands of patents have been issued in the United States and Europe covering improvements of the sewing machine; but although its efficiency and usefulness have been greatly increased by numerous accessories and attachments, the main principles have not been affected.

Buttons. — See pages 137–138 for a discussion of this item.

Hooks and Eyes and Snaps. — Hooks and eyes and snaps are generally considered a modern method of fastenings for garments, but they have their origin as far back as the fourteenth century in what was then referred to as the *crochet* or *loop*.

The first hooks and eyes were crudely fashioned by hand from wire. Redditch, England, the city now so famous for needles, was the first home of the machine-made hooks and eyes. Even among the early American colonists we hear of their use. It is recorded that in 1643 a lady in Maryland paid ten pounds of tobacco for hooks and eyes. The first part of the nineteenth century saw the industry started in the United States.

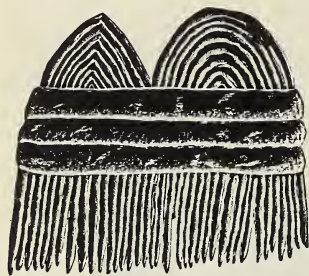


A SINGER FAMILY SEWING MACHINE OF 1868.

2. ORIGIN OF ACCESSORIES OF COSTUME

Combs. — Hair combs are of great antiquity, and ancient specimens have been found made of wood, bone, and horn. The Egyptians made them of ivory, and the Greeks and Romans of

boxwood. Combs were made in beautiful designs, often exquisitely carved and jeweled. Many of the decorative combs worn today are made of tortoise shell.



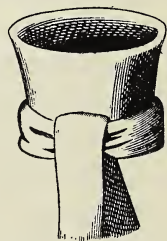
THIS STONE-AGE COMB was made by placing sticks close together and holding them firmly in position by a wooden clamp.

Cravats.—The cravat was originally a scarf. The word is from the French name “cravat,” a corruption of “Croat.” This was the name given by the French in the time of Louis XIV to the scarfs worn by Croatian soldiers in the royal regiments. The scarfs were usually of linen with broad edges of lace. They became fashionable throughout France and the fashion spread to England.

The Fan. — The fan has an interesting history. The first fan was probably a palm leaf used by man to keep away flies and gnats. In Egypt, 2000 years ago, fashionable hosts had servants to stand behind dinner guests and fan them with papyrus. The fans were semi-circular, made of leaves and feathers attached to a rigid handle of wood, ivory, or painted sandalwood.

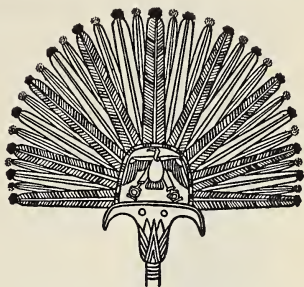
The custom of carrying fans soon spread from Greece and Rome to other parts of Italy and Europe. Venice, quick to grasp the opportunity to produce beautiful things, began to construct fans of ostrich feathers. France and Spain followed suit, and the fan became an important article of dress.

The invention of the closing or folding fans is accredited to China and Japan. They were made of ivory, turquoise, or mother of pearl slats, combined with wood, gold, silver, and sometimes silk and skins.



“CRAVATE À L'AMÉRICAINNE,” from a French book published in 1829, called *How to Tie the Cravat*.

Folding fans came to Europe through Portugal and at once became distinctly European. At first they were richly adorned but later became plain and severe. Sometimes portraits of great personages were painted in medallions on the fans, three or four on a side. With the vogue of etching came elaborate fans of lace. This excessive decoration preceded a decline in the artistic beauty of fans, and today beautiful fans are made only as the dictates of a fickle public demand them for ornament.



AN EGYPTIAN CEREMONIAL FAN.

Furs. — Furs were first worn by

the early barbarians. They were usually wrapped around the loins or around the body, crossing over on one shoulder. These uncivilized people also wore furs for sandals, with the fur for the inner part and the hide for the outer.

Later, when people became more civilized, and clothes became more elaborate, gowns were often lined with the richest of furs for winter use. The sleeves of the gowns were narrow to the elbow, where they widened into great hanging cuffs bordered with fur.

During 1688, the muff made its appearance in the costume of the gentlemen, being suspended by a ribbon about the neck. Never before in history had the taste for rich and costly furs been so



WINTER DRESS of a gentleman in 1688.

lavishly displayed as in this and the succeeding century.

About the year 1660, the fashionable lady of New Amsterdam

wore the loose jacket trimmed in fur. During the early years of the eighteenth century, the wealthy ladies of New York wore gowns which were richly adorned with the finest of furs. Today, beautiful furs still add elegance and luxury to any costume.

Gloves. — Gloves were both numerous and popular in olden times and relics of them have been found in the deserted habitations of the cave dwellers; but they were different from those of today, for they were merely a shapeless piece of hide tied or laced around the forearm, wrist, and hand, leaving the fingers free.



HEAVY GAUNTLET,
worn to protect the
hand and arm when
hawking.

The ancient Persians and Romans wore gloves, not only as decoration but for protection in war and in the chase.

From the eleventh to the thirteenth centuries, gloves showed a remarkable development. Gauntlets of leather were worn by men, those for military costumes having the backs covered by overlapping plates. During the thirteenth century, women began to wear gloves for the purpose of ornament. Most of them were made of linen and reached to the elbow.

During this age, gloves were sometimes put to strange uses; for example, if a person were unable to appear at an important function, he would send his gloves to represent him; or in a legal transaction, gloves might be exchanged as a pledge that each party would hold to his word; or, if a man had to sign legal papers and was unable to write, his gloves might be folded within the legal document in place of his signature; or, if a man thought another had wronged him, he would throw down his gloves or gauntlet as a challenge. Today we still hear the expression, "Throw down the gauntlet." If a knight of this age were disgraced, he not only forfeited his arms and title, but his gloves as well.

Queen Elizabeth was especially fond of fine gloves and proud of her beautiful hands as well, and it has been said that during a single interview, she was known to put on and pull off her gloves a hundred times. People of the court gave her numberless pairs of gloves exquisitely perfumed. Many were made to special order and were embroidered with gold and silver threads with tiny jewels worked into the designs.

In France, under Louis XIV, gloves of kid made their appearance. The women also wore gloves of knitted silk.

Today, glove making is one of the established productions of modern manufacturers, and gloves are as constantly changing in style as costumes themselves.

Hairdressing Styles. — As far back as we have record, men and women have carefully dressed and decorated the hair. Some styles were intended to be purely ornamental, while others indicated the age or rank of the wearer. In the ancient times, centuries before the birth of Christ, wigs were in general use, elaborately coiffured. Medieval hairdressing became more simple, but be-



LADIES' HAIRDRESSING was at its "height" about 1780. Headdresses were from one to three feet high, and were decorated with yards of ribbon, ropes of beads, artificial flowers and ostrich plumes.



ONE OF QUEEN ELIZABETH'S GLOVES, worn in 1566. It is half a yard long and is made of fine white leather worked with gold thread, edged at the bottom with yellow, and lined in the cuff with drab silk.

ginning with the fourteenth century styles became more elaborate again. Men not only curled their hair but their beards

as well. From the sixteenth to the eighteenth centuries, mammoth hairdressing was the vogue — tall headdresses of lace and stiffened muslin, huge edifices of curls stiffened so as to hold their shape. At the beginning of the nineteenth century, styles again became more simple. Short hair became the style for men, and women wore their hair in curls, tied back with ribbons. Later the curls were dispensed with and the hair arranged in a knot on top of the head. This was followed by the bobbed style of the present day.

Originally the Chinese wore their hair in a knot on the top of their heads. When the Manchus captured China, they were compelled to adopt the pigtail as a mark of bondage. It eventually became a popular fashion, and the braids were frequently lengthened by a silk thread.

Handkerchiefs. — The first handkerchief was a jackal's tail mounted on a stick. These "handkerchiefs" were used by the Bushman in primitive times, and served the double purpose of handkerchief and fan. Other savage races wove little mats of rushes to wear on their heads and used them to mop away the perspiration from their foreheads.

The Greeks and Romans had handkerchiefs of small squares of linen, which they carried tucked beneath their girdles.

The development of the handkerchief was rapid, and in France in the seventeenth century it reached an elegance hardly conceivable. Handkerchiefs were made of hand-wrought laces sometimes studded with jewels. In the eighteenth century, women began to use colored handkerchiefs. Louis XVI, inspired by Marie Antoinette, issued an edict causing handkerchiefs to be made square, rather than oval, round, or oblong, as the individual saw fit.

Hats. — Hats were intended originally as a protection from the sun or cold. Later they became ornamental and decorative.

The first form of the hat was the turban, taken from the Oriental countries, and had great distinction of style.

The headdress of the fourteenth and fifteenth centuries was introduced into France by Isabelle of Bavaria. It was a large-meshed fillet, tall and conical in shape. It is said the reason Isabelle introduced this hat was because she had lost her hair and disliked wigs. Another type of fifteenth-century hat, which was worn in England, was an extravagantly trimmed bonnet resembling an infant's cap and was worn by both men and women.

Catherine de' Medici and Mary, Queen of Scots, introduced the custom of the mourning bonnet which still prevails.



HEADRESS introduced by
Isabelle of Bavaria.

The "Fontanges headdress" was so called after the Duchess de Fontanges, who, while riding with King Louis XIV lost her hat, and taking her ribbon garter, slipped it upon her head to keep her hair in order. This so pleased the fancy of the king, that other court ladies promptly adopted the fashion.



HEADRESS during the
reign of Louis XVI.

The most fantastic headdress in history was worn during the reign of Louis XVI by Marie Antoinette and the ladies in the court. Following the revolution the poke bonnet came into popularity. This shape is still in vogue for children.

The toque is like the turban with the exception of the brim. The tam-o'-shanter owes its name to the hero of Burns' poem, "Tam O'Shanter." It was first worn by the Scottish plowman.

Peasant costumes, which have remained unchanged for centuries, owe much of their picturesqueness to the headdress.

Women in Alsace still wear the Breton cap, which is a stiffly starched cap with large bows and flowing ends.



HEADRESS of a
Brittany Peasant.

In Spain, Italy, and Greece women favor the mantilla type of hat, made from delicately wrought lace scarfs or coarse kerchiefs.

Women and children of the Dutch and Scandinavian countries wear starched, close-fitting caps. The Quakers and the Shakers wear a cap to characterize their unworldliness, while the poke bonnet is worn by the Salvation Army women workers.

The mortar board cap that stands for educational success comes down from medieval times to the present.

Until a short time ago, hats were made only in one average size, but they were fitted inside with a lining on a drawstring so that they could be tightened or loosened to fit the head. The little bow inside a man's hat is a relic of the old drawstring.

Mirrors.—The mirror is woman's true guide to her looks. No doubt the first mirror was a quiet pool. The early Greeks had mirrors made of circular pieces of polished bronze, often with richly adorned handles. Sometimes these round mirrors were hinged to circular boxes.

It was not until 1688 that glass mirrors were invented. A Frenchman, Louis Lucas, invented a glass which, baked with a proper alloy, formed a mirror and which, for the first time, gave woman a true reflection of her appearance.



A LADY USING A
"LIP-STICK" is shown
in this cartoon from a
book of 4000 years
ago. In her left hand
she holds a mirror and
a tube for the
cosmetics.

Ornaments. — It was not long after the origin of dress, that the idea of ornamenting one's dress was born. Embroidery, bead work, and fringes appeared on early Egyptian garments. Long sashes were looped up around the waist or hips, with richly ornamented ends, heavy with gold and silver and precious stones, left hanging. Fabrics were often embroidered with precious stones, — corals, seed pearls, or even colored glass beads as well as gold and silver spangles. Oftentimes the robes were finished at the neck with large pendants, engraved with various designs. Besides these necklaces, many bracelets, armlets, and anklets of gold and silver and beads were worn. Much of the sport jewelry of today goes back to these ancient times for design.



NECKLACE. — A relic of Palaeolithic times, from Barma Grande, Italy. It was made of stag canines, fish vertebrae, and *Nassa nerita* shells, and was found with the skeleton of a young man. Note the rhythmical arrangement and balance of design from top to bottom.

In earliest times, men monopolized all ornament. The prettiest shells, the sharpest saber teeth, the most highly polished stone, belonged to them. The chief and the medicine man were particularly resplendent in their ornaments and decorations. They were painted and greased. They wore shells and image idols. They even made for themselves bracelets of the human hair cut from war victims.

When man became a hunter, he found that many decorations were a hindrance to him. Warriors, too, found the ornaments a hindrance. They could swing a stone ax and wield a great spear much more easily when their bodies were free from heavy ornaments. They gave up everything except their "good-luck" charm, which they believed would protect them on the battlefield.

The dress of man, therefore, became simpler. Only the chief and the medicine man, both of whom remained in safe parts of

the battlefield and who did but little hunting, continued to wear many ornaments.

It was when man began to find elaborate dress and decoration a hindrance that woman began to decorate herself. She



BRONZE CHAIN, from Lozère, France. — Chains like this one probably served as belts, and enjoyed a wide distribution. The form of the Bronze age specimens is characteristic — flat, ribbon-like pieces alternating with filiform rings.

found it a pleasant diversion to sit by the fire and string teeth on a long fiber to be worn around her neck. She liked to make ornaments that would delight her master.

Thus, while man hunted with his neighbors, woman sat before the fire and kept the food in readiness for his return and, while the food cooked in the big iron pot, she made new things for herself to wear. Woman gradually began to dress for her own pleasure, as she still does to a very great extent. It would seem, however, that woman adorned herself originally because of man's vanity, rather than her own; the wealthier the man, the more ornaments she wore.

Parasols. — Sunshades were well known in Athens, as well as in Assyria, Egypt, and Persia, and were carried only by women. They resembled the Japanese parasol which we know, being somewhat flat, and were made of linen or silk stretched over a framework

found it a pleasant diversion to sit by the fire and string teeth on a long fiber to be worn around her neck. She liked to make ornaments that would delight her master.

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THE UMBRELLA being introduced by Jonas Hanway.

of ribs similar to that in the umbrella of today. The women of Gaul carried richly ornamented parasols.

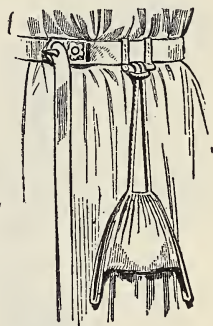
During the first half of the nineteenth century, the parasol almost usurped the place of the fan in milady's favor and seldom did she emerge for a promenade or drive without her tiny fringed sunshade. No one knows who made the first umbrella, but we know that Jonas Hanway was the first man to carry one over his head to keep off rain, as he walked through the streets of London. He is said to have used it for thirty years before it came into general use for this purpose.

Perfume. — The use of perfume in religious ceremonies can be traced back to very early times. The incense which was burned during these ceremonies spread a pleasing, aromatic odor throughout the temples. The Bible is full of references to perfumed oils and ointments.

During the sixteenth century perfumes were so popular that gloves were scented and even rings had cavities which held perfume.

Manufacture of perfumes today has become one of the fine arts, and new odors are being placed constantly on the market. Milady of fashion may now match her mood to perfume as easily as she may match a hat to a gown.

Purses. — One of the quaint customs introduced by the Crusaders was the fashion of wearing purses attached to the girdle. They were called "Saracen almsbags," but usually held other things besides coins for the poor. These little purses, or *amonières*, remained in fashion all through the Middle Ages and reappeared throughout the century as one of the indispensable adjuncts of costume, and were remarkable either for material or for needlework.



L'AMONIÈRES. — The oldest type is that of a little bag with a cord by which to open it and hang it from the belt.

Later, in France, the little purse was called the reticule. It had a flat, bag-shaped appearance and was usually made of silk.

Scarfs. — During the nineteenth and twentieth dynasties in Egypt (1350–1090 B.C.), the wearing of a long mantle became fashionable. This was draped, sometimes under one arm and over the other, sometimes over both shoulders, and fastened in front over the breast.



VEIL, worn by a Grecian lady, about to perform funeral rites.

Later the mantle became a short mantilla, which was often edged with fringe. Though this mantle was worn by Grecian ladies of later days, it was never adorned with fringe.

The style in mantles varied greatly in the different countries throughout the centuries. The scarf, or mantilla (borrowed from the Spanish *mantilla*), made of silk or satin was worn about the shoulders, or thrown over the head, and the ends tied loosely in front.

During the second quarter of the nineteenth century, mantles were made of various materials according to the season, often trimmed with fur for winter wear.

The Veil. — The veil, like the glove and the walking stick, belongs to antiquity. In ancient Greece veils were worn to distinguish different ranks, and to distinguish the free women from the slaves. Often the veil was a symbol of reverence, bereavement, matrimony, or service. These veils were more often worn as head-coverings than face-coverings, and were made of silk or linen, often embroidered.

Women adopted the veil as a fashion to enhance their beauty during the Middle Ages. During the early nineteenth century nose veils were considered very fashionable. With the advent

of the automobile, great veils of chiffon and gauze came into style, only to disappear as the closed car came into vogue. Today the wisp of a veil is only a whim of fashion.

The Walking Stick. — The walking stick, or cane, has a history that reaches back to Biblical times, for the Hebrews carried long, hooked sticks like those of shepherds.

The young Athenian dandies carried walking sticks. Some were long, like those of the Hebrews; some were short, like the modern riding crop.

In Europe, after the age of chivalry, the walking stick gradually took the place of the sword. Its use, however, did not become general until the time of Queen Elizabeth. Under Louis XIV, the walking stick was introduced into the French court. Men and women alike carried long, slender sticks.

Coats, Jackets, and Cloaks. — The ancient Asiatic people were the first people to wear another garment over their pantaloon-like dresses. It was made like a vest and fell in many folds below a girdled waist.

The women of Phrygia wore long, straight, close-fitting tunics with sleeves reaching to wrist or elbow, and large mantles of rich material over their shoulders.

In Greece about 600 B.C. the people wore a rectangular piece of woolen material sufficiently large to wrap about the body. This was known as the "peplos." The Doric "chiton" resembled the peplos to a certain extent, except that it was more ample and of softer and finer material and fell in numerous folds.

The garment that was worn by the Greeks in rainy or cold weather was a mantle which covered both the head and shoulders, thus serving as a head-covering and cloak combined. Another



A CANE as part of the costume of an Athenian youth.

garment which was often worn by the women of Greece was called the "diploidion." This was a square or oblong piece of material of varying size, resembling our shawls. It was folded double and generally wrapped around the figure so that the center of the material came under the left arm. It was fastened by clasps. The shape of the garment was considerably modified by fashion, and in later times it became a narrow slip hanging from the shoulders, resembling a semi-fitting jacket.



COSTUMES. — A Phrygian lady, a Dacian man, and a Grecian lady.

About the same time, the "chlamys" was introduced for the men. It resembled the women's cloaks except that it was smaller and fastened on the opposite shoulder.

In the first century A.D. the Gallic women of Rome began to wear the "palla" or "stola." This was a loose-fitting jacket-like garment, gathered in at the waist with a girdle. Later, the palla was replaced by the mantle which was draped around the figure. It frequently took the form of a full cloak, open in front and secured by a large clasp or brooch. Gold tissue was a favorite material for this mantle, but when occasion demanded, heavier stuffs were doubtless used. Until the tenth century, mantles of various shapes and sizes were the style.

At the time of the Crusaders, a tendency toward severity set in, and in the eleventh century both men and women adopted the "bliaud" — a long straight garment with large loose sleeves resembling the present-day kimono sleeve. Our modern garment, the "blouse," has preserved the name of "bliaud."

It is this garment, no doubt, which in the thirteenth century was changed into a "surcoat." These simple and severe costume effects, which came in during the period of the Crusades, proved to be

only temporary, and from the eleventh century on cloaks became more artistic.

During the thirteenth century, a fitted tunic came into use known as the "cote" or "cotta." A sleeveless garment (surcoat) was worn over this. This surcoat soon merged into the close-fitting, long-sleeved jacket which we know today.

The fashion of colored robes was developed in the fourteenth century. These robes and jackets were in vogue until the late seventeenth century, when the little shoulder cape or "palattrie" (called "pel-erine" by the English) was introduced. It



A THIRTEENTH-CENTURY GOWN



THE CHLAMYS

resembled a large drop collar and was usually made of gauze or lace in summer, and fur in winter.

The long clinging robe was also introduced which, without the suggestion of a plait, revealed the lines of the figure to advantage, and was looked upon with high approval by the leaders of fashion. At the same time a change from the doublet to the waistcoat or coat, for the gentlemen, was seen.

Toward the middle of the eighteenth century, the scarf or mantilla made its appearance and was worn about the shoulders

or thrown over the head and the ends tied loosely. In winter a full mantle or cape was worn, sometimes lined with fur and buttoned all the way down the front.



AN EIGHTEENTH-CENTURY GOWN

As the years wore on, the old frivolity and luxury were doomed for destruction, and by 1792 everything was changed. English fashions came into favor for a time. Close-fitting jackets with large lapels were adopted by women of fashion and waistcoats and cravats were frequently worn.

The dress of the early settlers in America has always been associated with the words "dull," "drab," and "sad-colored." Doublet and jerkin were made of leather or heavy woollens; the cassock, a garment similar to a coat, was of canvas and fastened with hooks and eyes, for buttons were a "vanity."

The Puritan women wore large kerchiefs about their shoulders on going out of doors, and in very cold weather the cloak and hoods were of heavier material fur-trimmed or made entirely of fur. In 1660, the doublet was gradually transformed into the full-skirted coat and with the coat came the vest.

In the later eighteenth and early nineteenth centuries, the pelisse was an indispensable item in every wardrobe. In its

original form it resembled the modern three-quarter jacket with close sleeves. The neck and sleeves were edged with fur, for it was decidedly a winter garment. In France it resembled a cape with large openings for the arms.

These large cloaks were worn by the very fashionable, and many of these were lined with bright colored silk. During the summer, shawls, short mantles (like dolmans), the long silk scarf, and the spensers, were popular.

The latter had its beginning in a man's coat, a top coat invented by Lord Spenser. This gentleman, so the story runs, made a wager that he could set a fashion which would become popular inside of six months and, further, that it would be a form of dress wholly meaningless and unnecessary. He then called for a pair of shears, cut off the tails of his coat, close to the waist, donned his hat and went out for a stroll. Since he was a handsome man and one well known in fashionable circles, it was only a matter of a few days before several London dandies were seen wearing "spensers," and within two weeks all London had donned the garment.

The spensers varied in style. Some were shaped like a blouse and opened in front. They were all short, never going below the waistline. For summer wear, the spensers were of silk. All our boleros, etons, and Spanish jackets have doubtless been evolved from the spenser. During the second quarter of the nineteenth century, long cloaks, the pelisse, the redingote, and the tippet were worn.

By 1890, the dolman was a favorite out-of-doors wrap. These cape-like coats varied in length and were made of the finest



A PURITAN COSTUME

brocades, silks, and satins, elaborately trimmed with fringes and puffings of silk. Outdoor jackets with short backs and long fronts were also worn.

The Corset. — Long before the days of Tennyson, both men and women wore a corset-like contrivance to keep their waists small. As early as the tenth century, corsets were being worn pretty

generally by women everywhere. They were long and tight, mercilessly compressing the waist. During the Middle Ages these "stays" remained, always becoming more and more torturous. The tight-laced bodice also made its appearance.



AN ELIZABETHAN COSTUME, showing the necessity for a small waist.

During the Elizabethan period, fashion ran to remarkable extremes. Fashionable men were never uncorseted and women wore corset covers, or bodices, of steel. These bodices were covered with beads, embroidery, or gold and jewels. In 1828, when Harvey made the discovery of the circulation of the blood, people began to think that the corset stopped the circulation and was the cause of all the little

pains and aches and ills they had been suffering. It therefore became more and more modified until it reached the "girdle" of today.

Undergarments. — It is said that Isabelle of Bavaria was the first to wear linen undergarments. This fashion was readily adopted by the ladies of the period. The linen chemise was regarded as a luxury, and called "robe-linge." In order to allow a glimpse of the underlinens, the ladies of the court cut slashes in the sleeves of their gowns and also in the hips of their skirts. This vanity finally led to a deception; only that part of the chemise which could be seen was made of linen, and

the remainder of the chemise was made of the old-time woolen material.

The cotillion, or underskirt, was always very handsome and elegant, whether worn by a bourgeoisie or a lady.

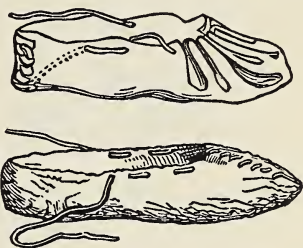
A buste, or bodice, was also worn to give support. This was worn as a sort of chest protector and was fastened in the back.

Up to the reform movement in dress, underclothing had been made chiefly of cotton or linen. When wool began to be manufactured there was a great demand for it. It was then that the ever-popular union suit, with its equal distribution of weight over the figure, was introduced.

Shoes. — There have been as many different kinds of shoes in all ages as there have been different people to wear them. History tells us that even during the reign of Thothmes III, nearly 1500 years before the Christian Era (and this was about the time of the flight of the people of Israel out of Egypt), shoemaking was an important industry in that country of the Nile.

Shoes are frequently mentioned in the Bible, especially in the Old Testament. In some cases, the wearers are requested to remove them as an act of reverence, in entering certain places considered holy.

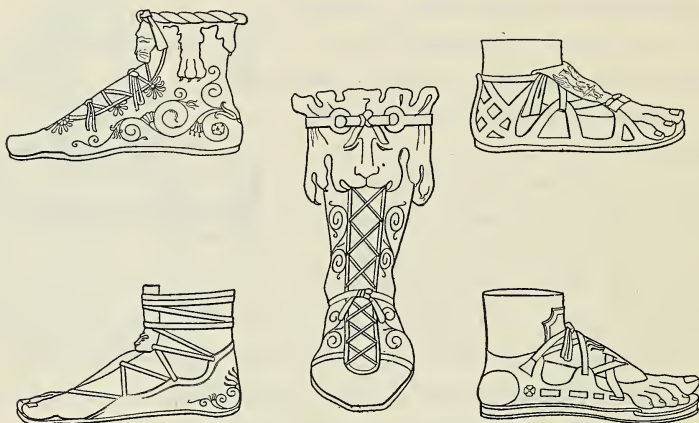
Shoemaking became popular as a trade among the ancient Greeks and also the early Roman people. In both these nations, sandals were commonly worn as well as high boots of leather. Color denoted the rank of the wearer. The nobility often spent large sums on the decoration of their shoes. A favorite type of shoe during the time of the Roman Empire was the "Caligulae" or "little boots." This name originated from the Emperor Caligula, who, when but a lad, visited the military camp of



SHOES worn by the Belgic Britons.

which his father was commander and wore military shoes of a special pattern and of a strong material, studded with hob nails. The soldiers who wore these were given the name of "Caligati" and thus the name "Caligulae" originated.

Another early shoe was the buskin, or cothurnus, a high strong shoe or half-boot, known in drama as the symbol of tragedy; while the low, light shoe, or soccus, was worn by the comedians and known as the symbol of comedy.



ROMAN SANDALS AND BUSKIN

By the fourteenth century, shoes had such long pointed toes that they were turned up and back and held in place by thin gold or silver chains. In the sixteenth century high heels made their appearance.

Marie Antoinette of France was the first to wear jewels, either real or paste, set in the heels of her shoes.

During the nineteenth century it became the custom to slash the shoes so that the bright stockings would show. Bright colored shoe ribbons were often used, and silk and metal thread embroidery added to the decorative effect.

The English wore fine leather shoes very elaborately adorned

with embroidery and fringe, and with flowing cuff tops richly lined.

Not long after the arrival of the Puritans upon American soil, a proposal was made to end the wastefulness in leather. It was said that one pair of high boots could be made into six pairs of shoes. Thus the clogs and low shoes became popular in the early days in the new world as well as in the old.

Buckles and rosettes were first used on the heavy square-toe shoes. Pointed and square toes, low and high heels, as well as no heels at all, have all had their day in the fashions of shoes.

In Belgium, Holland, and part of France, even today, one may hear the clatter of wooden shoes. If it weren't for the picturesqueness of the shoes and garments of different countries, it would not be half so much fun to travel about the world.

Stockings. — The use of the stocking originated in the cold countries of the north of Europe.

At first, people used wrappings of skin and cloth but later made crude stockings. After knitting was invented (in Scotland it is supposed, about the sixteenth century), they wore the stocking similar to that of today.

It is said that Henry VIII introduced silk stockings into England.

In 1589, during the reign of Queen Elizabeth, William Lee invented the stocking frame by which knitting was done with the aid of many needles instead of two, all of them working at one time. The queen came to see the wonderful invention, but was disappointed because the product was a coarse worsted stocking



LEG WRAPPINGS,
as worn by Greek peasants.

instead of a fine silk one. The queen, you see, was very vain and fond of gorgeous clothes. In order to please her, William Lee constructed a frame with twenty needles to the inch instead of eight, on which, in 1595, was made a pair of silk stockings which the queen accepted and praised, but she refused him a patent because she claimed it would take away the means of living from many poor subjects.

In 1816, the first circular knitting machine was invented. A few years later, steam was applied to this machinery, and now there are great factories which knit not only stockings but garments of almost every description.

The Clothes Closet. — Queen Elizabeth who had three thousand separate dresses, found chests wholly inadequate for her wardrobe, nor were the cupboards any more convenient, since the frocks and gowns were stiff with crinoline. Therefore, a special room was set aside for the Queen's gowns, and each gown was hung on a separate wooden peg. This room with the wooden peg developed into the modern clothes closet with its separate hangers.

A coat, a cape, a hat, a veil,
A scarf, a glove or two,
A pocket-book, a dainty fan,
A parasol of blue —
Supplied with these,

My Lady,
Be she dark or be she fair,
Is equipped for any climate,
Any country, anywhere.

APPENDIX

TO THE TEACHER

The text and illustrations of this book teach the pupil the technique of sewing. They present the necessary processes clearly and logically, thus giving the learner a firm foundation.

Upon this foundation may be built a course of study of any desired length based upon any approved method. The following projects and exercises are suggested to those who wish material of this sort, either as a guide or as a supplement to their own courses of study. Whenever necessary, page references to the text are given, so that the pupil may turn directly to the text for directions for completing the project.

The time allotment for the various assignments is purely suggestive. They will be found flexible enough to allow the adaptations which necessarily vary with locale.

Many of the projects, in their consummation, hold valuable suggestions and data for future reference. Such material should be collected in a notebook and kept as the pupil's personal guide to the "art of being well-dressed." The score card on page 341 could then be copied in the notebook whenever a project is to be scored, the entries becoming a permanent record of the degree of mastery of each construction project. Other suggested score cards can be found on pages 342-344.

APPENDIX

PROJECTS AND EXERCISES

Project I: The Sewing Room Equipment

1. What are the physical requirements of a convenient sewing room? Explain your reasons for your choice.
2. Make a list of the things necessary for a well-equipped sewing box and tell something about the various articles; their use, their origin, etc. (Pages 1-2.)

Project II: The Use of the Sewing Machine

(2 to 4 lessons)

1. Name the principal parts of a sewing machine. (The book of instruction which comes with a machine will be helpful for this exercise.)
2. Practice threading a machine, winding a bobbin, treadling, and putting in the needle. (Pages 35-39.)
3. Practice stitching exercises, given below, on a piece of paper.
 - a. Stitch on lined paper so that the stitching will coincide exactly with the lines.
 - b. Stitch on lined paper as near to the line as possible without touching it.
 - c. Stitch from edge of paper the width of the large and small parts of the presser foot.
 - d. Stitch along drawn curves, circles, points, and squares. Interest is obtained by stitching holders and individual monograms.
 - e. Fold a hem of paper and stitch as near the edge as is possible.
 - f. On unmarked paper, stitch uniform, specified widths, as $\frac{1}{8}$, $\frac{1}{4}$, and $\frac{1}{2}$ inches apart, using the eye as a gage.

4. Practice adjusting tension and stitches on a piece of cloth.
(Pages 36-39.)

5. Discuss the possible reasons for difficulties in stitching.

a. Needle breaks.

If the needle breaks, it may be due to a needle that is too long, or to a crooked or loose presser foot, a needle that is too fine for the material; or the material may have been pulled, or pins may have been left in the work after basting.

b. Stitches are skipped.

If the stitches are skipped, the needle may be too short for the machine or set too high or not high enough, or it may be blunt or crooked. Skipped stitches may also be due to thread that is not the right size for the needle.

c. Upper thread breaks.

If the upper thread breaks, the machine may not be correctly threaded, the tension may be too tight, the needle may be crooked or have a blunt end, or be too fine for the thread; or the needle may be set too high or too low.

d. Lower thread breaks.

If the lower thread breaks, the bobbin may be too loosely wound, the shuttle may not be threaded correctly, the tension may be set too tight, or the edges of the hole in the steel plate may be rough.

e. Material puckers.

If the material puckers, the needle may be blunt, the upper tension may be set too tight, the stitch may be too long for the material, or the material may be drawn too tightly to feed properly.

Project III: Sewing Habits

(5 lessons)

1. Why are habits of cleanliness and neatness necessary in the sewing room? Discuss the answers.

2. What is the correct posture at the sewing table or sewing machine? Demonstrate and give your reasons for your answer.
(Pages 35-36.)

3. Practice using the thimble. (Page 2.)

4. Make a gage.

5. Practice making basting stitches, even and uneven, on a piece of cloth, using a thimble correctly. (Pages 4-5.)

6. Practice making running stitches on a piece of cloth, using an unthreaded needle at first. (Pages 5-6.)

7. Turn a $\frac{5}{8}$ "-hem on one side of a piece of cloth, and a $\frac{1}{4}$ "-hem on the opposite side, using a gage. Baste the hems with the proper basting stitch. Hem both sides with fine hemming stitches. (Page 8.)

8. Overcast the two raw edges left on the square of cloth. (Page 6.)

9. Baste together two raw edges of a piece of cloth, and backstitch a seam $\frac{1}{4}$ " below the basting. (Pages 6-7.)

10. Plan to make a towel, a cover cloth, or some other simple article which has to be hemmed. Discuss the kind of cloth suitable. How may the end be straightened? (Page 200.) Turn the hems, baste the hems, sew with the hemming stitch, remove the bastings, press.

Project IV: Simple Clothing Construction

(20 lessons)

Whenever you have a construction problem, the first thing to do is to outline the sewing processes needed for working out the problem. Then test yourself to be sure that you know how to do each process listed. From pinning to finishing there is a correct way for doing every part of the work. Be sure that you know that way. Whether your work is to be done by hand or machine, knowledge of how to do it is necessary.

In all practice work have your teacher examine your samples and pass them before you go ahead on the construction of the garment. Enter on your score card the number of samples it was necessary for you to submit. When the garment is finished, have it appraised by your teacher, a committee of the class, and by yourself, and enter the

ratings on the score card. Thus you may keep a constant record of your own achievements for ready reference.

In sewing it is well to remember the fable of the tortoise and the hare and make haste slowly.

1. Discuss suitable materials for making a princess slip, bloomers, or nightgown. (Page 255.)

2. Choose one of the above to make for yourself, or plan to make your cooking outfit.

3. (a) Discuss suitable patterns for your choice in 2, procure your pattern, and then study the pattern directions carefully. (Page 256.) (b) Discuss the styles of kitchen aprons — their advantages and disadvantages.

4. What sewing processes will you need to know? List each one and be sure that you know how to do each one. Practice any you are not sure of.

5. Practice the following :

Plain seam. (Page 40.)

French seam. (Pages 40–41.)

Hemmed fell seam. (Page 41.)

Standing fell seam. (Pages 42–43.)

Your teacher's approval of your work will be the signal to pass from practice on one seam to the next, and so with similar practice exercises which follow.

6. Practice making buttonholes. (Pages 128–133.) Practice making loops. (Pages 133–136.) Discuss other types of fasteners. (Pages 137–141.)

7. Practice laying the pattern which you have chosen on your cloth, according to directions or in the most economical fashion, and cut out the garment. (Pages 199–205.)

8. Discuss the kind of trimming suitable for the garment you have chosen.

9. Practice putting on bias banding (page 56), first cutting true bias and dressmaker's bias from paper, and then from cloth. Put on both single and double bindings. (Pages 56-57.)

10. Discuss suitable kinds of lace to use for trimming. (Page 123.)

a. Practice various methods of attaching lace. (Pages 123-128.)

b. Practice mitering the corners of lace trimming. (Pages 63, 124.)

11. How can you determine the kind of neckline to use? Explain your choice. (Page 256.)

12. When you have completed your garment, have it judged and enter the scores on your score card.

Project V: Gift or Christmas Problem

(10 to 15 lessons)

1. Discuss suitable gifts which can be made by hand or machine, and make a choice for your own construction.

2. List all the various processes necessary to complete the work chosen in *a*.

3. Practice the decorative stitches to be used. (Pages 9-27.)

4. When you have completed the problem, have it judged and then enter the scores on your score card.

Project VI: Textile Studies and Judging Textiles

(Cotton, silk, wool)

(7 to 10 lessons)

1. *a.* Discuss the various fibers. (Pages 176-188.) Bring some samples from home and study them under the microscope. Make the various tests suggested on pages 179, 181, 184, 186, 188.

b. Make a line graph showing how these fibers rank in length, strength, diameter, elasticity, luster, capacity for holding moisture, heat conductivity, and cleanliness.

FIBER	LENGTH	STRENGTH	DIAMETER	ELASTICITY	ETC.
cotton					
linen					
rayon					
silk					
wool					

2. Be able to identify several kinds of cotton materials. Make tests for fastness of colors. (Pages 190–194.)

3. What qualities should one look for in buying fabrics? Collect and mount samples of materials suitable for underwear.

4. Examine samples of each kind of weave. (Pages 188–194.) Why is each weave suitable for a certain purpose?

5. What are the various qualifications of good material?

6. Experiment with the effect of sun, heat, and dye upon rayon.

7. Learn to distinguish between woolen and worsted. (Page 187.) Make various tests of woolen and worsted. (Page 188.)

Project VII: Construction of a Wash Dress

(25 lessons)

1. Cut out from the fashion magazines pictures of dresses suitable for school and bring them into class for discussion, together with samples of appropriate materials.

2. After making a choice of style and material for a dress, take proper measurements for a pattern and purchase the size necessary. (Pages 195–198.)

3. Purchase the necessary amount of material and findings, such as thread, lace, ribbon, buttons, and so on.

4. Study the pattern, reading the instructions carefully and noting the markings. (Pages 201–202.)
5. Demonstrate altering the pattern. (Pages 225–245.)
6. Cutting. (Pages 199–205.)
 - a. Straighten material.
 - b. Lay out pattern economically (pages 201–202) and pin.
 - c. Mark notches.
 - d. Demonstrate tailor's tacks. (Pages 45–46.)
7. Decide on seam allowance and demonstrate how the seams are to be finished.
8. Make an outline of the steps to be taken in the order of their accomplishment.
9. Review the sewing processes to be used, and practice any of which you are not sure.
10. Make your dress, asking your teacher's approval after each step before starting the next.
11. When the dress is finished estimate the cost of it, item by item. Enter your scores on the score card.

Project VIII: Selection of Design and Material for a Graduation Dress and Its Construction

(30 lessons)

1. Discuss those things which improve one's personal appearance; such as care of hair, nails, skin, teeth.
2. Discuss well-chosen clothing: dress, shoes, hosiery, underwear, accessories. (Pages 161–165, 206–218, 255–261, 266–268.)
3. Discuss the desirable qualities in a well-selected dress design: becomingness, suitability, lines, sleeves, material to be used. (Pages 157–194.)
4. Try out various colors, different shaped neck lines (page 81), collars, placing of belts, and so on, in class.
5. Follow construction processes as outlined in Project VII.

Project IX: Selection and Construction of a Silk Dress

(20 to 25 lessons)

1. Collect samples and pieces of figured silks. Which would you choose as correct for your own "type"? Why? (Pages 163-165.)
2. Test various samples of silk, and review what you have learned about silk and rayon. (Pages 184-187.)
3. Follow construction processes as outlined in Project VII. Practice carefully any processes not previously used. (Select pattern, select material, make dress, demonstrate fitting, record scores.)

Project X: Selection and Construction of a Wool Dress

(35 to 40 lessons)

This unit should be started so that the dress will be finished and ready to wear at the time of year when it is needed.

1. Review study of woolens and worsteds (pages 187-194) and test various pieces of woolen fabric.
2. Demonstrate methods of shrinking woolen fabrics. (Pages 285-286.)
3. Demonstrate methods of pressing woolen fabrics. (Page 284.)
4. Make samples of suitable types of seams to be used on woolen material. (Pages 40-43.)
5. Make samples of different methods of turning or finishing hems. (Pages 63-71.)
6. Make a model pocket suitable for a woolen dress. (Pages 104-114.)
7. Make a bound buttonhole and a loop. (Pages 130-136.)
8. Make a model placket for skirt or sleeve opening. (Pages 73-81.)

9. Make a sample collar, appropriate for a woolen dress. (Pages 81-89, 234-235, 246.)

10. Make the dress, following construction processes as outlined in Project VII.

Project XI: How to Dress in Good Taste

(10 lessons)

1. Bring to class pictures of a well-dressed girl and discuss the points which you consider necessary to being well-dressed. (Pages 266-268.) Enter in your notebook the points agreed upon by the class.

2. Discuss the value of the three factors: Appropriateness, becomingness, durability.

3. Illustrate with pictures cut out of the fashion books, or by lists, various types of clothes suitable to various occasions, and enter the approved choices in your notebook.

4. *a.* Paste on separate sheets of notebook paper pictures cut from fashion magazines which illustrate the following :

2 dresses and 2 hats suitable for the short girl.

2 dresses and 2 hats suitable for the tall girl.

2 dresses and 2 hats suitable for the stout girl.

b. Write briefly the reasons for your choice and explain the details of the costume in order. (If you can make original drawings for this project, do so.)

5. Study your own type and decide on the texture of material ; waistline, armline, shoulder line, and neckline most becoming. Have the class judge your selections. (Pages 163-165.) Enter these items in your notebook for reference.

6. Plan a color chart to suit your particular type. (Pages 154-156.) When it has been accepted by the majority of the class, enter it in your notebook for reference.

Project XII: Planning the High School Wardrobe

(2 lessons)

1. What are suitable clothes for a high school girl? List those you think you will need. After class discussion, amend your list, if necessary, and enter the result in your notebook for future reference. (Pages 266-268.)

2. What types of dresses should never appear in the class room?

3. Consider the question of silk stockings for the high school girl's wardrobe. What are your conclusions?

4. Cut from the fashion magazines a school costume for yourself, which includes dress, coat, shoes, hose, gloves, and purse. Be prepared to defend your choice. When you are sure your choice is excellent in all details, enter it in your notebook.

Project XIII: Budgets in Relation to High School Girls' Spending and Clothing Allowance

(7 to 10 lessons)

1. Make the following lists:

- a.* The Clothing I Have on Hand.
- b.* The Garments Which May Be Made Over.
- c.* The Clothing I Shall Need This Semester.
- d.* The Repairs Necessary for the Clothing on Hand.
- e.* The Approximate Cost of My Needs in Clothing.
- f.* The Clothing I Should Like to Have This Semester.

2. Compare the approximate amount which your family can allow you for clothing for the semester with the approximate cost of your needs in clothing. Is there any way in which you may cut the approximate cost, without sacrificing qualities you need, and thus be able to buy some of the things you want?

3. How do your lists compare with other lists in the class? Does comparison make it possible for you to cut down on either list *c* or *f* in the first exercise of this project?

4. If *e* amounts to more than your family can allow you, what can you do?

5. State in a few sentences reasons why you should be given a clothes allowance.

6. List all the suggestions you can think of which would be of value to you if you were buying on a limited income. (Pages 216–218.)

7. Discuss the care and repairs which make garments more usable. (Pages 141–143; 274–296.)

8. Make a one-year, two-year, or three-year clothing budget for a high school girl, with a clothing allowance of \$100 a year. Choose the best budget in the class and copy it in your notebook.

Project XIV: Alterations in Patterns to Suit Individual Figures

(10 to 15 lessons)

Practice altering patterns following suggestions given in Chapter 7.

Project XV: Variations in Plain Patterns to Suit Individual Tastes

(15 lessons)

1. Demonstrate shifting fullness from one place on a pattern to another.

2. Design different styles of collars and cuffs.

3. Draft a pattern to fit yourself.

4. Choose a pleasing pattern from a fashion magazine and demonstrate the variations you will have to make in a simple pattern to create a garment like it.

5. From a simple, kimono sleeved pattern, work out variations in plaits, collars, cuffs, front facings, or trimmings.

Project XVI: Designing and Constructing Children's Clothing

(10 to 15 lessons)

1. Make a child's dress from a simple pattern, adding variations in fullness, yokes, collars, cuffs, or trimmings.

2. Design several dresses for children, giving a detailed account of the kind of fabric to choose, colors, finishes, and trimmings.

Project XVII: Renovation of Clothing and Care of Clothing

(25 lessons)

1. Make a sample of a neat patch. (Pages 141-143.)

2. Make a sample of a darn. (Pages 7, 143-144.)

3. Make a laundry bag, clothes cover, clothespin bag, or shoe bag.

4. Repair and press a garment.

5. Make an outline to follow for the daily care of clothing. (Pages 141-143, 274-275, 295-296.)

6. Discuss various stains and methods of removal. Demonstrate one of them. (Pages 286-295.)

7. Plan how one old dress in your wardrobe might be remodeled.

8. Launder two samples of white silk and white wool; one sample of each in tepid water, the other in very hot, soapy water. Compare the results. (Pages 277-281.)

9. Wash and press a simple blouse or dress. (Pages 281-284.)

Project XVIII: Using a Difficult Pattern and Practice in Fitting a Garment

1. Review the steps in the use of patterns. (Pages 219–254.)

Read directions carefully and study markings; identify all pieces and eliminate those not needed; test the pattern and compare with individual measurements; alter the pattern as necessary.

2. Cut a garment from muslin in accordance with pattern above. (Pages 270–271.)

3. Construct the muslin garment. (Pages 270–273.)

Project XIX: Selection and Construction of a Tailored Garment with a Review of Sewing Processes

(70 to 75 lessons)

1. Review the processes of sewing, pages 1–70.

2. Make samples of two of these processes, assigned to you by the teacher, and explain to the rest of the class how they were made.

3. Review pages 267–273 of the textbook.

4. Select a pattern for your garment and follow the construction processes as outlined in Project VII. If there are any sewing processes with which you are unfamiliar or of which you are not sure, practice them for perfection before attempting the process in the construction of the garment; such as making seams, collars and cuffs, hems, pockets, belts, buttonholes, plaits, setting in sleeves, and fitting linings.

5. Make out a cost sheet for the garment, adding to it the value of the time which you spend in making the garment. Compare this cost with the price of a ready-made garment. What is your conclusion?

TOPICS FOR CLASS REPORTS

Occasionally some pupils will be caught up on a particular project and waiting for assignment to another. Pupils finding themselves in such a situation may undertake the research and notebook work necessary to give a comprehensive and interesting report on one of the topics suggested herewith. The list should not be accepted as a final one, for many other interesting topics for research will doubtless suggest themselves to both teacher and pupils.

History of Rayon.

Fabrics and Their Finishings.

Costume Accessories of the Present Day.

Ready-Made Underwear — Its Price, Quality, and Style.

Grooming (from work in health or general science courses).

Clothes and Their Relation to Hygiene.

Old Lace.

Tapestry Weaving.

Peasant Embroidery.

CLASS COMMITTEE ACTIVITIES

Two or three pupils may be appointed by the teacher, or elected by the class, to undertake each committee project. The work should be done as opportunity offers and reports made and the dramatization given on some definite date fixed by the teacher or the class.

An Exhibit of Old Fashioned Clothes (by means of costumes, drawings, or illustrations from books).

Make a Model Closet (providing for clothes, hats, shoes, etc.)

Plan a Style Show.

Dramatize a Shopping Expedition.

Go on a Shopping Tour (to compare store articles with like home-made articles).

SCORE CARD FOR PROJECT-----

169

WORKMANSHIP							APPRAISAL	
PROBLEM	HAND SEWING			MACHINE SEWING				
	1	2	3	1	2	3		
SEAMS							COLOR :	
HEMS							-----	
TUCKS							-----	
PLAITS, GODETS							DESIGN :	
BINDINGS, FACINGS							-----	
YOKES							-----	
PLACKETS							FABRIC :	
COLLARS							-----	
SLEEVES							-----	
CUFFS							-----	
POCKETS							COST :	
BELTS, GIRDLES							MATERIAL \$----	
FASTENERS							FINDING ----	
FINISHES (DECORATIVE STITCHES)							MY TIME ----	
							TOTAL ----	
TOTAL SCORES							TOTAL SCORE	

SCORE CARD FOR SEWING

Suitability of article to purpose	25	Perfection of stitches.....	15
Beauty and quality of design..	10	Neatness of finish.....	15
Harmony of color and materials	15		
Symmetry and accuracy in cutting.....	20	Total.....	100

SCORE CARD FOR DARNING

Inconspicuousness of darn....	60	Durability of result.....	30
Choice of thread or yarn used	20	General appearance of exhibit..	10
Size and position of stitches	20	Cleanliness.....	5
General neatness of work	20	Pressing.....	5
		Total.....	100

SCORE CARD FOR PATCHING

Inconspicuousness of patch....	40	Suitability of type of patch to article and fabric.....	20
Choice of material and thread.....	10	Durability of result.....	30
Placing of patch.....	10	General appearance of exhibit..	10
Size and position of stitches.....	10	Cleanliness.....	5
General neatness of work	10	Pressing.....	5
		Total.....	100

SCORE CARD FOR BUTTONHOLES

Suitability to garment and purpose.....	30	Perfection of fan or bar end.....	10
Position of buttonhole..	10	For bound buttonholes:	
Type.....	10	Evenness of finish....	20
Size.....	10	Appearance on wrong side.....	20
Workmanship.....	50	Kind of material used	10
For worked buttonholes:		General appearance.....	20
Kind of thread used..	10		
Depth and evenness of stitches.....	20	Total.....	100
Perfection of purl....	10		

SCORE CARD FOR FANCY WORK

Perfection of stitches.....	20	Harmony of color and materials	25
Neatness of finish.....	15		
Suitability of article to purpose.	20	Total.....	100
Beauty and quality of design..	20		

SCORE CARD FOR WOMEN'S GARMENTS

General appearance.....	15	Economic aspects.....	20
General design and color combination.....	10	Durability of materials and design.....	5
Individuality.....	5	Value in relation to cost.	5
Suitability to person for whom planned.....	20	Judgment shown in dis- tribution of cost among articles.....	5
Artistic aspect.....	10	Cost of upkeep.....	5
Design and color.		Suitability to occasion.....	15
Materials.		Workmanship.....	20
Health aspects.....	10	(Neatness and quality of stitch- ing, seams, hems, etc.)	
Comfort.			
Protection.		Total.....	100
Completeness of costume.....	10		

SCORE CARD FOR MADE-OVER GARMENTS

Be sure the material is worth remaking, as to durability and time.

General success of project.....	30	Textile design combina- tions.....	5
Ingenuity shown in the problem.....	10	Workmanship.....	30
Economical use of ma- terial.....	10	Choice and neatness of seams, hems, finishes, etc.....	15
Suitability of result to purpose for which in- tended.....	5	Perfection of stitching (hand or machine)...	15
Durability of result.....	5	Relation of value to cost in time and money.....	10
Design and color.....	30	Total.....	100
Beauty of design.....	10		
Color combinations.....	10		
Texture combinations...	5		

SCORE CARD FOR CHILDREN'S GARMENTS

Suitability of design and materials.....	50	Artistic aspects.....	10
Health aspects.....	15	Beauty of design and color	
Comfort and protection		Simplicity	
Ease of putting on and removing.....	10	Completeness of costume.....	10
Design		General attractiveness of exhibit.....	10
Fastenings		Relation of value to cost in time and money.....	10
Economic aspects.....	15	• Workmanship.....	20
Durability		(Neatness and quality of stitching, seams, hems, etc.)	
Provision for growth of child		Total.....	100
Ease of laundering and cleaning			

OUTLINE FOR BUDGET PLANNING

	NUMBER REQUIRED	NUMBER ON HAND	NUMBER TO BUY	UNIT COST	TOTAL COST	YEARS USED	YEARLY COST
Outer clothing							
Coats							
Hats							
Dresses, etc.							
Underwear							
Union Suits							
Chemises							
Bloomers, etc.							
Boots, Shoes,							
Stockings,							
etc.							
Gloves							
Sundries							

INDEX



INDEX

- Accessories, 206-218, 303-324
 - Origin of, 303-324
- Acetate Rayon, 182
- Acid Tests for Fibers, 179, 180, 181, 184, 186, 188
 - Cotton, 179
 - Cotton from Linen, 180
 - Cotton from Silk, 179
 - Cotton from Wool, 179
 - Rayon, 184
 - Silk, 186
 - Wool, 188
- Adding Fullness to Patterns
 - Bust, 227-229
 - Collar, 234-235
 - Hips, 243-244
 - Neck, 232-233
 - Neck and Shoulders, 234
 - Shoulder, 229-230
 - Skirt, 244-245
 - Sleeves, 235-237, 240-242
 - Sway-Back, 230-231
 - Waist, 225-226
- Adjustments of Patterns, 219-254
- Altering Patterns, 225-245
 - Belts, 245
 - Bust, 227-229
 - Collars, 234-235
 - Cuffs, 242
 - Figures, 230-232
 - Hips, 243-244
 - Neck, 232-234
 - Shoulders, 229-230
 - Skirts, 244-245
 - Sleeves, 235-242
 - Waistline, 242-243
 - Waists, 225-226
- Appenzell Stitch, 14
- Appliqué, 26
- Appropriateness, 266-268
- Armseye, 223-224
- Arm Measurement, 223-224
- Arrowhead, 21-22
- Attached Cuffs, 103
- Attaching Laces to Edges, 125-126
- Back Measurement, 196-197
- Back Stitch, 6-7
- Balance, 158-161
- Ball and Socket Fasteners, 139-140
- Bands on Garments, 48-49
- Bar Tack, 23
- Bar Tack at End of Buttonholes, 128
- Basic Stitches, 3-9
 - Basting Stitches, 4-5
 - Diagonal, 5
 - Dressmaker's, 5
 - Even, 4
 - Guide, 5
 - Uneven, 4-5
- Ending Threads in Machine Stitching, 4
- Knot Stitches, 3
- Plain Knot, 3
- Plain Stitches, 5-9
 - Back, 6-7
 - Blind Slip, 8
 - Buttonhole, 7
 - Catch Hemming, 8
 - Combination, 7
 - Darning, 7
 - Overcast, 6
 - Overhand, 6
 - Running, 5-6

- Basic Stitches; Plain Stitches (*Cont.*)
 Warp, 8-9
 Whipping, 6
 Basket Weave, 190
 Bast Fiber, 169
 Batik Dyeing, 169
 Battening, 170
 Beauty, 213-216
 Belting, 170
 Belts, 114-116
 Double, 115-116
 Girdles, 116
 Sashes, 116
 Single, 115
 Ties, 116
 Bermuda Fagoting, 18
 Bias, 56-58, 61
 Garments, 56
 Mitering, 61
 True, 56
 Bias Binding, 56-57
 Bias Facing, 59-60
 Bias Strips, 56
 Binary Colors, frontispiece
 Binding Seams, 45
 Bindings, 56-57, 79-81
 Conspicuous, 57
 Inconspicuous, 57
 Neck, 79-81
 Black, 151
 Blanket Stitch, 15
 Bleaching, 170, 175, 176, 279
 Cotton, 279
 Linen, 279
 Silk, 175, 279
 Wool, 176, 279
 Bleeding, 170
 Blinding, 170
 Blind Slip Stitch, 8
 Block Patterns, *see* Drafted Patterns
 Block Printing, 170
 Bloomers, 259-260
 Blue, 148
 Bobbin Winding, 37-38
 Boiled-Off Silk, 170
 Bottom of Sleeve, Finish, 98-104
 Bound Buttonholes, 130-133
 Bound Hems, 66-67
 Bound Placket, *see* Continuous
 Bound Pocket, 108-110
 Bow Stitch, 12
 Box Plait, 53
 Breaking, 170
 Briar Stitch, 12
 Brocade Weave, *see* Figure Weave
 Brown, 149
 Budget (Clothing), 216-218
 Bullion Stitch, 14
 Burling, 170
 Burnt-Out Process, 170
 Bust Measure, 196
 Buttonhole Stitch, 7
 Buttonhole Twist, 133
 Buttonholed Eyelets, 14
 Buttonholes, 7, 14, 128-136
 Bound, 130-133
 Cord, 136
 Elastic, 136
 Eyelets, 14
 Frogs, 136
 Looped (Material), 134-136
 Looped (Worked), 133-134
 Buttons, 128, 137-139
 Cloth-Covered, 137-139
 Metal, 137
 Pearl, 137
 Buying Clothes, 216-218
 Cable Stitch, 21
 Calendering, 170
 Carbonizing, 170
 Carding, 170
 Catch Hemming Stitch, 8
 Catch Stitch, 11
 Center Back, 198
 Center Front, 198

- Chain Crocheting, 29-30
- Chain Stitch, 9
- Chemical Bath, 170
- Chemical Bleaching, 170
- Chest Measure, 196
- Children's Clothes, 261
- Choosing Materials, 165-169
- Chroma, frontispiece
- Cloaks, 315-320
- Cloth, 171-172
- Cloth-Covered Buttons, 137-139
- Clothes
 - Buying, 216-218
 - Cleaning, 274-295
 - Dry Cleaning, 274-275
 - Method of Bleaching Linen, 279
 - Setting Colors, 279-280
 - Methods, 280
 - Tinting, 280-281
 - Washing, general directions, 275-277
 - Boiling, 276
 - Ironing, 277
 - Rinsing, 276-277
 - Soaking, 276
 - Soap, 275-276
 - Water, 275
 - Washing, special materials, 277-280
 - Flannels, 279
 - Rayon, 277
 - Silk, 277
 - Wool, 278-279
 - Decorative Stitches for, 21-27
 - Appliqué, 26
 - Arrowhead, 21
 - Bar Tack, 23
 - Cable, 21
 - Couching, 21
 - Crowfoot, 22
 - Needlepoint, 26-27
 - Punch Work, 25
 - Shadow Stitch, 25-26
 - Smocking, 23, 25
 - History of, 206-209
 - Whys and Hows of, 206-218
 - Beauty, 213-216
 - Clothes and Character, 206-209
 - Clothing Budget, 216-218
 - Style, 210-213
- Clothes Closet, 295-296, 324
- Clothing Budget, 216-218
- Clover-Leaf Tatting, 29
- Cluny Lace, 123
- Coat, 119-123, 268-273, 315-320
 - Lining, 119-123
 - Muslin Coat, 270-271
 - Origin of, 315-320
 - Steps in Making, 269-273
- Coat Lining, 119-123
- Cold Colors, frontispiece
- Collars, 81-89, 234-235, 246
 - Convertible, 81-85
 - Attaching, 83
 - Facing, 81-83
 - Middy, 83-84
 - Straight Band, 83
 - Tailored, 84-85
 - Non-Convertible, 86-89
 - Attached, 86
 - Detached, 87
 - Peter Pan, 88
 - Rolled, 88-89
 - Shawl, 89
 - Stand-Up, 87-88
- Color, 147-156, 279-281
 - Binary, frontispiece
 - Chroma, frontispiece
 - Cold, frontispiece
 - Complementary, frontispiece, 153-154
 - Fading, 279-280
 - Hue, frontispiece
 - Interpretation, 148-152
 - Law of Dressing Scheme, 152

Color (*Continued*)

- Neutrals, frontispiece, 151-152
 - Black, 151
 - Gray, 151-152
 - White, 151
- Primary, frontispiece
- Scheme, 153-156
 - Blend with Eyes, 153
- Secondary, frontispiece
- Setting of, 280
- Shades, frontispiece
- Terms of, frontispiece
- Tertiary, frontispiece
- Tinting, 280-281
- Tints, frontispiece
- Types, 154-156
 - Demi-Blonde, 154
 - Gray, 156
 - Pale Brunette, 155
 - Pure Blonde, 154
 - Pure Brunette, 155
 - Titian, 155
 - Value, frontispiece
 - Warm, frontispiece
- Color Cycle, frontispiece
- Colors, 148-152
 - Blue, 148
 - Brown, 149
 - Green, 149
 - Orange, 149
 - Purple, 149-150
 - Red, 150
 - Yellow, 150-151
- Combination Stitch, 7
- Combing, 171
- Combs, 303-304
- Commercial Pattern, 245-246
- Commercial Seam, 43
- Common Pins, 298-299
- Complementary color, frontispiece
- Construction Problems, 71-144
 - Belts, Girdles, Sashes, and Ties, 114-116

- Double, 115-116
- Girdles, 116
- Sashes, 116
- Single, 115
- Ties, 116
- Fasteners, 128-141
 - Buttonholes, 128-136
 - Bound, 130-133
 - Cord, 136
 - Elastic, 136
 - Frogs, 136
 - Looped (Fabric), 134-136
 - Looped (Worked), 133-134
 - Worked, 128-130
 - Buttons, 128, 137-139
 - Cloth-Covered, 137-139
 - Metal, 137
 - Pearl, 137
 - Hooks and Eyes, 140-141, 303
 - Snaps, 139-140, 303
- Laces, 123-128
 - Attaching to Edges, 125-126
 - Corners, 124-125
 - Fagoting to Fabric, 126
 - Insertions, 127-128
 - Joining of, 124
 - Medallions, 126-127
- Linings, 116-123
 - Coat, 119-123
 - Waist, 117-119
- Mending, 141-144
 - Darned in, 142
 - Darning, 143
 - Darning Holes, 144
 - Diagonal Tears, 144
 - Hemmed, 141-142
 - Overhand Patch, 142-143
 - Set-In, 141-142
 - Straight Tears, 144
 - Three-Cornered Tears, 144
- Neckline Finishes, 81-89
 - Convertible Collar Facing, 81-83
 - Detached, 87

- Middy, 83-84
- Non-Convertible, 86-89
- Peter Pan, 88
- Rolled, 88-89
- Shawl, 89
- Stand-Up, 87-88
- Straight Band, 83
- Tailored, 84-85
- Plackets, 73-81
 - Continuous, 73-74
 - Cut-Out Continuous, 74
 - Fly, 76-78
 - Lap, 76
 - Neck Binding, 79-81
 - Tailored, 78-79
 - Tucked, 75-76
 - Two-Piece, 74-75
- Pockets, 104-114
 - Bound, 108-110
 - Flap, 113-114
 - Lap, 110-111
 - Patch, 105-106
 - Set-In, 106-108
 - Welt, 112-113
- Sleeve Finishes (Bottom), 98-104
 - Attached, 103
 - Cuffless, 99
 - Detached, 103-104
 - Double, 100-101
 - Single, 99-100
 - Tailored, 101-103
- Sleeves, 89-98
 - Epaulet, 98
 - Kimono, 96-97
 - Raglan, 97
 - Set-In, 90-96
 - Shirt, 90
- Yokes, 71-73
 - Double, 72-73
 - Single, 71-72
- Construction Processes, 39-70
 - Bias, 56
 - True, 56
- Bindings, 56-57
 - Conspicuous, 57
 - Inconspicuous, 57
 - In General, 56-57
- Cordings, 60
 - Pipings, 60
 - Tucked, 60
- Darts, 46-47, 222-223
 - Making of, 46-47
 - Placement of, 222-223
- Facings, 56-60
 - Fitted, 59
 - Shaped, 59-60
 - Straight, 59
- Gathering, 47-50
 - Garment Bands, 48-49
 - Machine, 47
 - Ruffles, 50
 - Shirring, 49-50
- Godets and Flares, 54-56
 - Inconspicuous, 55
 - Tailored, 55
- Gussets, 55-56
- Hems, 63-70
 - Bound Hem, 66-67
 - Curved, 67-68
 - Damask, 70
 - Establishing Hemline, 64-66
 - Faced, 67
 - French, 70
 - Method of Sewing in, 66
 - Napery, 70
 - Plain, 66
 - Pointed, 68-69
 - Rolled, 70
 - Scalloped, 68-69
 - Squared, 68-69
- Mitering, 61-63
 - Bias Tape, 61
 - Embroidery, 63
 - Finish Miter, 61-62
 - Firm Fabric, 61
 - Lace, 63

Construction Processes (*Continued*)

- Pipings, 57-59
 - Conspicuous, 58-59
 - General Directions, 57-58
 - Inconspicuous, 58
- Plaits (Pleats), 51-54
 - Box, 53
 - Inverted, 53
 - Kick, 53-54
 - Knife, 52
- Seam Finishes, 44-45
 - Binding, 45
 - Overcasting, 44
 - Picoting, 45
 - Pinking, 44-45
 - Turned, 45
- Seams, 39-45
 - Commercial, 43
 - Corded, 44
 - Fell (Flat), 41-42
 - Fell (Standing), 42-43
 - Flannel, 43
 - French, 40-41
 - Lap, 42
 - Picot, 43-44
 - Plain, 40
 - Welt, 43
- Tailor's Tacks, 45-46
- Tucks, 50-51
- Construction Stitches, 1-38
- Continuous Placket, 73-74
- Convertible Collar Facing, 81-83
- Coral or Feather Stitch, 12
- Cord Buttonhole, 136
- Corded Seams, 44
- Cording, 60
 - Piping, 60
 - Tucks, 60
- Corners of Lace, 124-125
- Corsets, origin, 320
- Cotton, 176-180, 190-194, 279
 - History of, 178
 - Manufacturing Process, 179
 - Materials, 190-194
 - Microscopic, 179
 - Source, 179
 - Tests, 179-180
 - Where Found, 178
- Cotton Bleaching, 279
- Couching Stitch, 21
- Count of Cloth, 171
- Count of Yarn, 171
- Cravats, origin, 304
- Cravenetting, 171
- Crewel Stitch, 9
- Crocheting, 29-33
 - Chain, 29-30
 - Double, 30-31
 - Single, 30
 - Yarn Flowers, 31-33
- Crofting, 171
- Cross Dyeing, 171
- Cross Stitch, 12-13
- Cross Weaving, 177
- Crowfoot, 22
- Cuffless Sleeves, 99
- Cuffs, 99-104
 - Attached, 103
 - Detached, 103-104
 - Double, 100-101
 - Single, 99-100
 - Tailored, 101-103
- Curved Hem, 67-68
- Cut-Out Placket, 74
- Cutting, 199-205, 265-273
 - Knowledge required, 199-203
 - Order of, 203-205
 - Coat, 119-123, 268-273
 - Dress, 203-205
 - Garment, 265-273
- Cutting Fabrics, 200-201
 - Straight, 200
 - With Designs, 201
 - With Weaves, 200-201
- Damask Hem, 70

- Darned Patch, 142
- Darning, 7, 143-144
 - Hole, 144
- Darts, 46-47, 222-223
 - Making of, 46-47
 - Placement of, 222-223
- Decorative Stitches, 9-27
 - Appenzell, 14
 - Appliqué, 26
 - Arrowhead, 21
 - Bar Tack, 23
 - Blanket, 15
 - Bow, Deerfield, or Oriental, 12
 - Briar, 12
 - Buttonholed Eyelet, 14
 - Cable, 21
 - Catch or Catstitch, 11
 - Chain, 9-10
 - Couching, 21
 - Cross, 12-13
 - Crowfoot, 22
 - Embroidery, Blanket, 16
 - Fagoting, 16-19
 - Bermuda, 18-19
 - Diagonal, 16
 - Net, 17-18
 - Straight, 17
 - Feather, 12
 - French Knots, 13
 - Hemstitching, 19-21
 - Diagonal or Rickrack, 20
 - Double, 20
 - Italian, 20-21
 - Single, 19
 - Ladder, 10
 - Long and Short, 11
 - Lazy Daisy, 11
 - Magic Chain, 10
 - Needlepoint, 26-27
 - Outline, 9
 - Punch Work, 25
 - Rambler Rose, 15
 - Rolled Rose, 14
 - Satin, 15-16
 - Seed, 11
 - Shadow Stitch, 25-26
 - Smocking, 23-25
 - Stem, 9
 - Zigzag Chain, 10
- Deerfield Stitch, 12
- Design, 157-194
 - Elements of Design, 158-160
 - Fabrics, 165-188
 - Classification of, 168-169
 - Cotton, 176-180
 - Linen, 180-182
 - Rayon, 182-184
 - Silk, 184-187
 - Terms, 169-176
 - Wool, 187-188
 - Figure and Posture, 161-163
 - Individual types, 163-165
 - Weaves and Knits, 188-194
 - Figure, 192-193
 - Knitted, 193-194
 - Warp, 193-194
 - Weft, 193-194
 - Lappet, 173
 - Pile, 174
 - Plain, 190
 - Sateen, 191-192
 - Satin, 191-192
 - Twill, 191
- Detached Collar, 87
- Detached Cuffs, 103-104
- Diagonal Basting, 5
- Diagonal Fagoting, 16
- Diagonal Hemstitching, 20
- Difficulty When Stitching, 39-40, 328
- Direct Printing, 171
- Discharge Process, 171
- Double Belts, 115-116
- Double Crocheting, 30-31
- Double Cuffs, 100-101
- Double Hemstitching, 20
- Double Ring Tatting, 28-29

- Double Yoke, 72-73
- Down Hair, 171
- Drafted Patterns, 246-254
 - Collars, 250-251
 - Cuffs, 251-252
 - Skirt, 252-254
 - Sleeve, 249-250
 - Waist, 247-249
- Draped Patterns, 245-246
- Drawing (yarn), 171
- Dress for Any Occasion, 266-268
 - Color, 267
 - Fabric, 267
 - Measurement, 267
 - Pattern, 267
 - Picture, 267
 - Shrinking, 268
 - Trimmings, 267-268
 - Wardrobe, 266-267
- Dressing Individual Types, 163-165
- Dressing Materials, 171
- Dressing Scheme, 152-153
- Dressmaker's Basting, 5
- Dry Cleaning, 274-275
- Duplex Printing, 171
- Duplicate Printing, 171
- Dyeing, 171-172
 - Cross, 171
 - Excess, 279-280
 - Pure, 174
 - Tie, 175
- Dynamiting, 172
- Edge Finishes, Bindings, 56-70
 - Blanket Stitch, 15
 - Embroidery, 9-21
 - Facing, 59-60
 - Hemming, 8
 - Hems, 63-70
 - Hemstitching, 19-21
 - Lace, 123-128
 - Overcasting, 6, 44
 - Picoting, 45
 - Pinking, 44-45
 - Piping, 57-59
 - Elastic Buttonholes, 136
 - Embroidery Stitches, *see* Decorative Stitches
 - Emeries, origin of, 300
 - Epaulet Sleeve, 98
 - Establishing Hemlines, 64-66
 - Ethics of Shopping, 206-218
 - Even Basting, 4
 - Eyelets, 14
 - Buttonholed, 14
 - Eyes, and Hooks, 140
 - Origin of, 303
 - Fabrics, 165-169, 172
 - Faced Hem, 67
 - Facings, 56-60
 - Fitted, 59
 - Shaped, 59-60
 - Straight, 59
 - Fagoting, 16-19
 - Bermuda, 18
 - Diagonal, 16
 - Net, 17
 - Straight, 17-18
 - Fagoting Lace to Fabrics, 126
 - False Hems or Facings, 56-60
 - Fancy Pins, origin, 299
 - Fans, origin, 304-305
 - Fan-Shaped End in Buttonhole, 130
 - Fasteners, 128-141
 - Buttonholes, 128
 - Bound, 130-133
 - Elastic, 136
 - Frogs, 136
 - Looped (Fabric), 134-136
 - Looped (Material), 133-134
 - Worked, 128-130
 - Buttons, 128, 139, 303
 - Cloth, 137-138
 - Metal, 137
 - Pearl, 137

- Hooks and Eyes, 140-141, 303
- Snaps, 139, 303
- Stitched Fastenings, 3-4
 - Hand, 3
 - Kinds, 4
 - Machine, 4
- Feather Stitch, 12
- Feet, 161-163
- Fell Seams, 41-43
- Felted Material, 172
- Felting, 172
- Fiber, Definition, 172
- Fiber Tests, 179, 181, 184, 186, 188
- Fibers, 176-188
 - Cotton, 176-180
 - Linen, 180-182
 - Rayon, 182-184
 - Silk, 184-187
 - Wool, 187-188
- Figures, 161-163
- Figure Weaves, 192-193
- Filled Materials, 172
- Filling Substances, 172
- Filling Thread, 172
- Finished Garment, 265-273
 - How to Make a Dress for Any Occasion, 266-268
 - How to Make a Coat, 268-273
- Fitted Facings, 59-60
- Fitting Problems, 64-66, 219-225
 - Armseye, 223
 - Bust Line, 223
 - Darts, 222-223
 - Hem Line, 64-66, 225
 - Hip Line, 225
 - Lifts, 222-223
 - Neck Line, 223
 - Pockets, 225
 - Shoulder Seams, 219-221
 - Establishing, 220
 - Location of, 219
 - Sleeves, 223-224
 - Underarm Seams, 221-222
 - Waistline, 225
- Flannel Seams, 43
- Flap Pockets, 113-114
- Flares, 54-56
 - Gussets, 55-56
 - Inconspicuous, 55
 - Tailored, 55
- Flat Fell Seams, 41-42
- Flax, 180-182
- Fleece, 172
- Floats, 172
- Flocks, 172
- Fly Placket, 76-78
- Foundation Stitches for Tatting, 27-28
- French Hem, 70
- French Knot, 13-14
- French Seams, 40-41
- French Tack, 134
- French Val Lace, 123
- Frogs, 136
- Front Measure, 198
- Full-Fashioned, 172
- Full-Figure Alteration, 230-234
- Furs, 305-306
- Gage, 64-65, 135
- Garment Bands, 48-49
- Garment, Completed, 265-273
- Gassing, 172
- Gathering, 47-50
 - Garment Bands, 48-49
 - Machine, 47
 - Ruffles, 50
 - Shirring, 49-50
- Gauze Weaving, 171
- German Val Lace, 123
- Ginning, 173
- Girdles, 114-116, 160
- Gloves, origin, 306-307
- Godets, 54-56
 - Inconspicuous, 55
 - Tailored, 55

- Grass Bleaching, 173
- Gray, 151-152
- Green, 149
- Guide Basting, Stitch, 5
- Gussets, 55-56
- Hackling, 173
- Hairdressing Styles, 307-308
- Handkerchiefs, Origin, 308
- Hand Stitches, *see* Stitches
- Hats, origin, 308-310
- Hem Line, 64-66, 225
- Hemmed Patch, 141-142
- Hemming Stitch, 8
- Hems, 63-70
 - Basting, 66
 - Bound, 66-67
 - Curved, 67-68
 - Damask, 70
 - Faced or False, 67
 - French, 70
 - Plain, 66
 - Pointed, 68-69
 - Rolled, 70
 - Scalloped, 68-69
 - Square, 68-69
 - Sewing in, 66
 - Turning, 65
- Hemstitching, 19-21
 - Diagonal, 20
 - Double, 20
 - Italian, 20-21
 - Rickrack, 20
 - Single, 19
 - Hand, 19
 - Sewing Machine, 19
- Herringbone Stitch, 11
- Hip Line, 225
- Hip Measure, 198
- Historic Costume Figures, 208-209, 211, 215
- Hooks and Eyes, 140
 - Origin, 303
- Hosiery, 161-163
- How to Alter Patterns, 225-245
 - Belts, 245
 - Bust, 227-229
 - Collars, 234-235
 - Cuffs, 242
 - Figures, 230-232
 - Hips, 243-244
 - Neck, 232-234
 - Shoulders, 229-230
 - Skirts, 244-245
 - Sleeves, 235-242
 - Waistline, 242-243
 - Waists, 225-226
- How to Clean, Press, Shrink, and Remove Stains, 274-295
 - Care of Clothes Closet, 294-296
 - Cleaning garments, 274-281
 - Pressing, 281-284
 - Removal of Stains, 286-295
 - Shrinking, 284-286
- How to Dress in Good Taste, 206-218
- How to Make a Coat, 202, 268-273
 - Assembling Coat, 271-273
 - Assembling Muslin Coat, 270-271
 - Cutting Coat, 271
 - Cutting Muslin Pattern, 270
 - Fabric, 269
 - Making Single Collars, 271
 - Measurement, 269
 - Muslin, 269
 - Pattern, 269
 - Pattern Study, 270
 - Pinning Pattern, 202, 270
 - Shrinking, 270
- How to Make a Drafted Pattern, 246-254
 - Back of Fitted Waist, 247-248
 - Collars and Cuffs, 250-252
 - Fitted Skirt, 252-254

- Fitted Sleeve, 249-250
- Front of Fitted Waist, 248-249
- How to Use Thimble, 1-2
- Hue, frontispiece, 153
- In the Gray, 173
- Insertion, 127-128
- Ironing, 277
- Italian Hemstitching, 20
- Jackets, 315-320
- Jacquard Weaving, 189
- Joining Collars, 83
- Joining Laces, 124
- Joining Middy Collar, 83-84
- Joining Ruffles, 50
- Joining Sleeves, 94-96
- Joining Skirt and Waist, 72-73
- Kensington Stitch, 9
- Kick Plaits, 53-54
- Kimono, 261
- Kimono Sleeve, 96-97
- Knife Plait, 52-53
- Knitted Fabrics, 193-194
- Knitting, 33-35, 173, 193-194
 - Plain, 35
 - Purl, 35
 - Warp, 194
 - Weft, 194
 - Example, 194
- Knot, 3-4, 13-14
 - French, 13-14
 - Plain, 3
 - Square, 4
 - Surgeon's, 4
- Laces, 123-128
 - Attaching to Edges, 125-126
 - Fagoting to Fabric, 126
 - Insertion, 127-128
 - Joining of, 124
 - Kinds, 123
- Medallions, 126-127
- Mitering Corners, 124-125
- Ladder Stitch, 10
- Lap Placket, 76
- Lap Pocket, 110-111
- Lappet Weave, 173
- Laundrying, 277-280
 - Bleaching, 270
 - Fading, 279-280
 - Rayon, 277
 - Silk, 277
 - Wool, 278
- Law of Dressing Scheme, 152, 153
- Lazy Daisy Stitch, 11
- Leno Weaving, 171
- Line in Dress, 157-160
- Lines, 173
- Linen, 180-182, 279
 - History of, 180
 - Manufacturing, 181
 - Miscroscopic, 181
 - Source, 181
 - Tests, 181-182
 - Where found, 181
- Linen Bleaching, 279
- Lines, 223-225
 - Armseye Curve, 223-224
 - Bust Line, 223
 - Hem Line, 225
 - Hip Line, 225
 - Neck Line, 223
 - Pockets, 225
- Linings, 116-123
 - Coats, 119-123
 - Waists, 117-119
- Lint, 173
- Linters, 173
- Loading Materials, 172
- Location of Seams, 219-223
- Long and Short Stitch, 11
- Looped Buttonhole, 133-136
 - Fabric, 134-136
 - Worked, 133-134

- Machine Gathering, 47
- Machine Hemstitching, 19
- Machine, Use of, 35-38, 327-328
 - Stitching, 36, 327
 - Threads, 37
- Magic Chain Stitch, 10
- Making a Collar, 81-89
- Mangling, 173
- Marking place for, 128-129, 139
 - Buttonholes, 128-129
 - Fasteners, 139
- Markings, pattern, 201-202
- Matching Lace, 124
- Materials, 165-169
 - Classification of, 168-169
 - Crosswise, 171
 - Cutting, 200-201
 - Knowledge of, 167
 - Lengthwise, 173
 - Raw, 174
 - Seconds, 174
 - Selvedge, 175
 - Sized, 175
- Measurements, 195-198
 - Kinds, 195
 - Arm, 196
 - Armseye, 196
 - Back Chest, 196
 - Center Back, 196, 198
 - Center Front, 196, 198
 - Hip, 198
 - Neck, 195
 - Shoulder, 195
 - Underarm, 196
 - Waist, 198
 - Required, 195-198
 - Taking Accurate, 195-198
- Medallions, 126-127
- Mending, 141-144
 - Darning, 143-144
 - Diagonal Tears, 144
 - Holes, 144
 - Straight Tears, 144
 - Three-Cornered Tears, 144
- Patches, 141-143
 - Catch Stitch, 142
 - Darned, 142
 - Hemmed, 141-142
 - Overhand, 142-143
 - Set-In, 141
- Mercerizing, 173
- Metal Buttons, 137
- Method of Sewing in Hem, 66
- Microscopic View of Textile Fibers, 177
- Middy Collar, 83-84
- Mill Waste, 173
- Milled Material, 172
- Mingo, 173
- Mirrors, 310
- Mitering, 61-63
 - Bias, 61-62
 - Embroidery, 63
 - Finish, 61-62
 - Firm Materials, 61
 - Lace, 63
 - Straight Bands, 62-63
- Mordant, 173
- Napery Hem, 70
- Napping, 173
- Neck Binding, 79-81
- Neck Front, 79-81, 223
- Neck Line, 81, 163-164
- Neck Line Finishings, 81-89
- Needlepoint, 26-27
- Needles, 2-3
 - Origin, 299-300
 - Types, 2-3
- Neps, 173
- Net Fagoting, 17-18
- Neutral Colors, frontispiece, 151-152
- Nightgowns, 256
- Noils, 173
- Non-Convertible Collar, 86-89

- Notches, 201-202
- Oil Removal, 293
- One-Piece Placket, *see* Continuous Placket
- Orange, 149
- Oriental or Bow Stitch, 12
- Origin of Clothes Closet, 324
- Origins, 297-324
- Origin of Accessories of Costume, 303-324
- Cloaks, 315-320
- Coats, 315-320
- Combs, 303-304
- Corsets, 320
- Cravats, 304
- Fan, 304-305
- Furs, 305-306
- Gloves, 306-307
- Hairdressing Styles, 307-308
- Handkerchiefs, 308
- Hats, 308-310
- Jackets, 315-320
- Mirrors, 310
- Ornaments, 311-312
- Parasols, 312-313
- Perfume, 313
- Purses, 313-314
- Scarfs, 314
- Shoes, 321-323
- Stockings, 323-324
- Undergarments, 320-321
- Veil, 314-315
- Walking Stick, 315
- Why Women Wear More Ornaments than Men, 311-312
- Origin of Tools of Sewing, 297-303
- Buttons, 137, 303
- Emeries, 301
- Eyes, 303
- Hooks, 303
- Needles, 299-300
- Pins, 298-299
- Common, 298-299
- Fancy, 299
- Safety, 299
- Scissors, 298
- Sewing Machine, 301-303
- Snaps, 303
- Thimble, 300-301
- Thread, 301
- Ornaments, 311-312
- Outline Stitch, 9
- Overcasting, 44
- Overcast Stitch, 6
- Overhand Patches, 142-143
- Overhand Stitches, 6
- Pajamas, 260-261
- Parasols, 312-313
- Patches, 141-144
- Catch Stitch, 142
- Darned-In, 142
- Hemmed, 141-142
- Overhand, 142-143
- Set-In, 141-142
- Patch Pockets, 105-106
- Pattern Markings, 201-202
- Patterns and Adjustments, 219-254
- Altering, 225-245
- Belts, 245
- Blocked, 246
- Bust, 227-229
- Collars, 234-235
- Commercial, 245
- Cuffs, 242
- Darts, 222-223
- Direction Sheet, 202
- Drafted, 246-254
- Draped, 246
- Figures, 230-232
- Hips, 243-244
- Kinds, 245
- Lines, 223-225
- Markings, 201-202

Patterns and Adjustments (*Cont.*)

- Muslin, 270-271
- Neck, 232-234
- Seams, 219-222
- Shoulders, 229-230
- Skirt, 244-245
- Sleeve, 235-242
- Waist, 225-226
- Pearl Buttons, 137
- Peeks Thread, 176
- Pelt, 173
- Perfume, 313
- Peter Pan Collar, 88
- Picking, 174
- Picoted Seams, 43-44
- Picoting, 45
- Pile Weave, 174
- Pinking, 44-45
- Pins, 298-299
 - Common, 298-299
 - Fancy, 299
 - Safety, 299
- Piping, 57-60
 - Conspicuous, 58
 - Cord, 60
 - Inconspicuous, 58
- Placement of Darts, 222-223
- Placing Fabric in Machine, 38
- Placing Sleeve, 94-96
- Plackets, 73-81
 - Binding, 79-81
 - Continuous or One-Piece, 73-74
 - Cut-Out Continuous, 74
 - Fly, 76-78
 - Lap, 76
 - Tailored, 78-79
 - Tucked, 75-76
 - Two-Piece, 74-75
- Plain Hem, 66
- Plain Knit, 35
- Plain Knot, 3
- Plain Seams, 40
- Plain Stitches, 5-9
- Back, 6
- Blind Slip, 8
- Buttonhole, 7
- Catch Hemming, 8
- Combination, 7
- Darning, 7
- Overcast, 6
- Overhand, 6
- Running, 5
- Warp, 8-9
- Whipping, 6
- Plain Weave, 190
- Plaits, 51-54
 - Box, 53
 - Inverted, 53
 - Kick, 53-54
 - Knife, 52
- Pleats, 51-54
 - Box, 53
 - Inverted, 53
 - Kick, 53-54
 - Knife, 52-53
- Pockets, 104-114, 225
 - Bound, 108-110
 - Flap, 113-114
 - Lap, 110-111
 - Patch, 105-106
 - Set-In, 106-114
 - Welt, 112-113
- Pointed Hems, 68-69
- Posture, 161-163
 - At Sewing Machine, 35-36
- Pressing, 281-284
 - Cotton, 283
 - Linen, 283
 - Methods of, 282-283
 - Pile, 283
 - Rayon, 284
 - Silk, 284
 - Tools for, 281-282
 - Iron, 282
 - Ironing Board, 281
 - Pressing Cloth, 282

- Sleeve Board, 281
- Tailor's Cushion, 281
- Wool, 284
- Primary colors, frontispiece
- Printing, 174
 - Duplex, 171
 - Duplicate, 171
- Proportion, 157-165
- Punch Work, 25
- Purl Knit, 35
- Purple, 149-150
- Purses, 313-314
- Raglan Sleeve, 97
- Rambler Rose Stitch, 15
- Rayon, 182-184
 - History, 182
 - Kinds, 182
 - Acetate, 182
 - Regenerated, 182
 - Manufacturing, 184
 - Microscopic, 184
 - Source, 184
 - Tests, 184
 - Where Found, 183
- Red, 150
- Reeling, 174
- Regenerated Rayon, 182
- Remodeling, 266-268
- Removing Agents, 287-288
 - Absorbents, 288
 - Bleaches, 288
 - Solvents, 287-288
 - Washing, 287
- Removing Fabric from Machine, 38
- Retting, 174
- Rhythm, 157-160
- Rickrack Hemstitching, 20
- Rippling, 174
- Rolled Collar, 88-89
- Rolled Hem, 70
- Rolled Rose Stitch, 14
- Roughing, 174
- Round-Eye Fasteners, 140
- Round Shoulders, 229
 - Alterations for, 229
 - Fitting, 229
- Ruffles, 50
- Running Stitch, 5-6
- Safety Pins, 299
- Sashes, 114-116
- Sateen Weave, 191-192
- Satin Stitch, 15-16
- Satin Weave, 191-192
- Scalloped Hem, 68-69
- Scarfs, 314
- Schreinerizing, 174
- Scissors, 199
 - Origin of, 298
- Scouring, 174
- Scutching, 174
- Secondary Colors, frontispiece
- Seam Finishes, 44-45
 - Binding, 45
 - Overcasting, 44
 - Picoting, 45
 - Pinking, 44-45
 - Turned, 45
- Seams, 39-45, 219-223
 - Commercial, 43
 - Corded, 44
 - Fell (Flat), 41-42
 - Fell (Standing), 42-43
 - Flannel, 43
 - French, 40-41
 - Lap, 42
 - Location of, 219-223
 - Picoted, 43-44
 - Pinked, 44-45
 - Plain, 40
 - Welt, 43
- Seed Stitch, 11
- Selvedge, 175
- Set-In Pockets, 106-108
- Set-In Sleeves, 90-96

- Sewing Machine, 35-39
 - Difficulty when Stitching, 39, 328
 - Origin of, 301-303
 - Placing Material, 38
 - Principles of Machine Stitching, 38
 - Removing Material, 38
 - Stitching Exercises, 36, 327
 - Tension, 39
 - Threading, 37-38
 - Treadling, 35-36
 - Winding Bobbin, 37-38
- Shades (Colors), frontispiece
- Shadow Stitch, 25-26
- Shank (Buttons), 137
- Shaped Facings, 59-60
- Sharp Needles, 2
- Shawl Collar, 89
- Shears, 199
 - Origin, 298
- Shirred Ruffle, 49-50
- Shirring, 49-50
 - By Hand, 49-50
 - By Machine, 50
- Shirt Sleeves, 90
- Shoes, 161, 321-323
- Shopping Ethics, 206-218
- Shoulder Alterations, 228-230
 - Narrow, 229
 - Round, 229
 - Sloping, 229-230
 - Wide, 228
- Shoulder Measurement, 195
- Shoulder Straps, 258
- Shrinking, 284-286
 - Cotton, 285
 - Linen, 285
 - Pile, 285
 - Silk, 285
 - Wool, 285-286
- Shrunk Material, 172
- Silk, 184-187
 - Boiled-Off, 170
- History of, 184-185
- Manufacturing of, 186
- Microscopic, 186
- Souple, 175
- Source, 185
- Spun, 175
- Test, 186
- Waste, 175
- Where Found, 185
- Silk Bleaching, 175
- Singeing, 172
- Single Belts, 115
- Single Crocheting, 30
- Single Cuffs, 99-100
- Single Hemstitching, 19
- Single Placket, 73
- Single-Ring Tatting, 28
- Single Yoke, 71-72
- Sized (fabric), 175
- Sleeve Draft, 249-250
- Sleeve Finishes, 98-104
 - Attached Cuffs, 103
 - Cuffless, 99
 - Detached Cuffs, 103-104
 - Double Cuff, 100-101
 - Single Cuff, 99-100
 - Tailored Cuff, 101-103
- Sleeves, 89-104, 223-224, 235-242, 249-250
 - Altering, 235-242
 - Bottom Finishes, 98-104
 - Draft, 249-250
 - Establishing Armseye, 223-224
 - Fitting, 223-224
 - Kinds
 - Cuffless, 99-100
 - Epaulet, 98
 - Kimono, 96-97
 - Raglan, 97
 - Set-In, 90-96
 - Setting-In, 94-96
 - Shirt Sleeve, 90
 - Location of, 223-224

- Setting-In, 93-94
- Testing, 235-242
- Slide Fasteners, 128
- Slip Stitch, 8
- Slips, 257
- Sliver, 175
- Smocking, 23-25
- Snaps, 139
 - Origin of, 303
- Sorts, 175
- Spinnerets, 175
- Square End Buttonhole, 128
- Square Hem, 68-69
- Square Knots, 4
- Stains, 274-277, 286-295
 - Absorbents, 288-289
 - Bleaches, 288
 - Blood, 289
 - Bluing, 289
 - Boiling, 276
 - Chewing-Gum, 290
 - Chocolate, 290
 - Cocoa, 290
 - Coffee, 290
 - Dry Cleaning, 274-275
 - Egg, 290
 - Fruit, 290-291
 - Grass, 291
 - Grease, 291
 - Ink, 291-292
 - India, 291
 - Marking, 291-292
 - Printing, 292
 - Writing, 292
 - Iodine, 292
 - Ironing, 277
 - Mildew, 292-293
 - Oils, 293
 - Paint, 293
 - Perfume, 293
 - Perspiration, 293
 - Pressing, 281
 - Rinsing, 276-277
 - Rust, 294
 - Scorch, 294
 - Soaking, 276
 - Soaps, 275
 - Soft Drinks, 294
 - Solvents, 287-288
 - Stamping Mark on Embroidery, 294
 - Tarnished Metallic Laces, 295
 - Tea, 290
 - Varnish, 293
 - Washing, 287
 - Water, 275
 - Wax, 295
- Standing Fell Seam, 42-43
- Stand-Up Collar, 87-88
- Staple, 175
- Stitches, 3-35
 - Basic, 3-9
 - Back, 6
 - Basting Stitches, 4-5
 - Diagonal, 5
 - Dressmaker's, 5
 - Even, 4
 - Guide, 5
 - Uneven, 4-5
 - Blind Stitch, 8
 - Buttonhole, 7
 - Catch Hemming, 8
 - Combination, 7
 - Darning, 7
 - Diagonal Basting, 5
 - Dressmaker's Basting, 5
 - Ending Threads, 4
 - Even Basting, 5
 - Guide Basting, 5
 - Hemming, 8-9
 - Catch, 8
 - Running, 5
 - Slip-Stitch, 8
 - Warp, 8-9
 - Knot, 2
 - Overcast, 6

Stitches (*Continued*)

- Overhand, 6
- Plain Knot, 3
- Running Stitch, 5
- Slip Stitch, 8
- Square Knot, 4
- Stitching, *see* Back Stitch
- Uneven Basting, 4-5
- Weaving, 4
- Whipping, 6
- Decorative, 9-35
 - Appenzell, 14-15
 - Appliqué, 26
 - Arrowhead, 21-22
 - Bar Tack, 23
 - Blanket, 15
 - Bow, 12
 - Briar, 12
 - Bullion, 14
 - Buttonhole, 14
 - Eyelet, 14
 - Stitched, 14
 - Cable, 21
 - Catch, 11
 - Chain, 9
 - Couching, 21
 - Crewel, 9
 - Crocheting, 29-33
 - Cross, 12-13
 - Crowfoot, 22
 - Deerfield, 12
 - Embroidery Blanket, 16
 - Eyelet, 14
 - Fagoting, 16-19
 - Bermuda, 18
 - Diagonal, 16
 - Net, 17
 - Straight, 17
 - Feather, 12
 - French Knots, 13
 - Hemstitching, 19-21
 - Diagonal, 20
 - Double, 20
 - Italian, 20-21
 - Rickrack, 20
 - Single, 19
 - Herringbone, 11
 - Knitting, 33-35
 - Ladder, 10
 - Lazy Daisy, 11
 - Long and Short, 11
 - Magic Chain, 10
 - Needle Point, 26
 - Oriental, *see* Bow Stitch
 - Outline, 9
 - Punch Work, 25
 - Rambler Rose, 15
 - Rolled Rose, 14
 - Satin, 15-16
 - Seed, 11
 - Shadow, 25-26
 - Smocking, 23-25
 - Stem, 9
 - Tatting, 27-29
 - Wheat, 14
 - Zigzag Chain, 10
- Stitched Edge Seam, 43
- Stitching Exercise, 327
- Stocking Darn, 143-144
- Stockings, 323-324
- Straight Band Collar, 83
- Straight Fagoting, 17
- Style, 210-213
- Surgeon's Knot, 4
- Table of Textiles, 177
- Tacks (French), 134; (Tailor's), 45-46
- Tailored Collar, 84-85
- Tailored Cuff, 101-103
- Tailored Placket, 78-79
- Tailor's Tack, 45-46
- Taking Measurements, 195-198
- Tatting, 27-29
 - Clover Leaf, 29
 - Double Ring, 28-29

- Foundation Stitches, 27-28
- Single Ring, 28
- Tears, 143-144
 - Diagonal, 144
 - Holes, 144
 - Straight, 144
 - Three-Cornered, 144
- Teaseling, 173
- Teddies, 258-259
 - Cutting, 259
 - Finishes, 258-259
 - Illustrations, 258
- Tension, 38, 328
- Tertiary color, frontispiece
- Testing Fibers, 179, 181, 184, 186, 188
- Testing Patterns, 219-254
- Textiles, 176-188
 - Cotton, 176-180
 - Linen, 180-182
 - Rayon, 182-184
 - Silk, 184-187
 - Wool, 187-188
- Thimble, 1-2, 300-301
 - Origin, 300-301
 - Position, 2
 - Use of, 1-2
- Thread, 2-3, 301
 - Origin, 301
 - Table of Size, 3
- Threading the Machine, 37-38
- Throwing, 175
- Ties, 116
- Tints, frontispiece
- Tools of Sewing, 1-3, 297-303
- Tops, 175
- Treadling the Machine, 35-36
- Trimmings, 255-256, 267-268
 - Dress, 267-268
 - Underwear, 255-256
- Trom, 175
- True Bias, 56-62
 - Garment, 56
 - Mitering, 61
- Tucked Placket, 75-76
- Tucks, 50-51
 - Corded, 51
- Turned Seams, 45
- Twill Weave, 191
- Two-Piece Placket, 74-75
- Two-Ply, 175
- Types, 265-266
 - Athletic, 266
 - Dramatic, 266
 - Ingenue, 265
- Umbrellas, *see* Parasols
- Underarm Measure, 196
- Underarm Seam, 221
- Undergarments, 255-261, 320-321
 - Bloomers, 259-260
 - Kimono, 261
 - Nightgowns, 256
 - Origin of, 320-321
 - Pajamas, 260-261
 - Patterns and Measurements, 256
 - Slips, 256-257
 - Suitable Materials, 255
 - Teddies, 258-259
- Uses of Lace, 123-128
- Value, Color, frontispiece
- Value of Fibers, 165-194
- Veil, Origin of, 314-315
- Waist-Back Draft, 247-248
- Waist-Front Draft, 248-249
- Waist Line, 242-243
- Waist Lining, 117-119
- Waist Measurement, 198
- Walking Stick, Origin of, 315
- Warm Colors, frontispiece
- Warp, 175
- Washing, 275-279, 286-295
 - Cotton, 275-277
 - Flannel, 279
 - Garments, 275-279

- Washing (*Continued*)
 Linen, 275-279
 Rayon, 277
 Silk, 277
 Soap, 275-276
 To Remove Stains, 286-295
 Wool, 278-279
 Weaves, 176, 188-194
 Cross, 171
 Figure, 192-193
 Gauze, 171
 Lappet, 173
 Leno, 171
 Pile, 174
 Plain, 190
 Sateen, 191-192
 Satin, 191-192
 Weaving Stitch, 4
 Weft Threads, 176
 Weighting Materials, 172
 Welt Pockets, 112-113
 Welt Seams, 43
 Wheat Stitch, 14
 Whipping, 6
 White, 151
 Why Women Wear More Ornaments
 than Men, 311-312
 Winding the Bobbin, 37-38
 Wool, 172, 176
 Wool, 174-176, 187-188
 History of, 187
 Kinds of, 187
 Pulled, 174, 187
 Reclaimed, 174
 Remanufactured, 174
 Shoddy, 187-188
 Virgin, 175, 187
 Woolens, 176, 187
 Manufacturing Process, 188
 Microscopic, 188
 Source, 187
 Test, 188
 Where Found, 187
 Wool Bleaching, 176, 279
 Woolens, 176, 187-188
 Wool Sponging, 284
 Worked Buttonholes, 128-130
 Worsted, 176, 187
 Yarn Flowers, 31-33
 Yellow, 150-151
 Yokes, 71-73
 Double, 72-73
 Single, 71-72
 Zigzag Chain Stitch, 10

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